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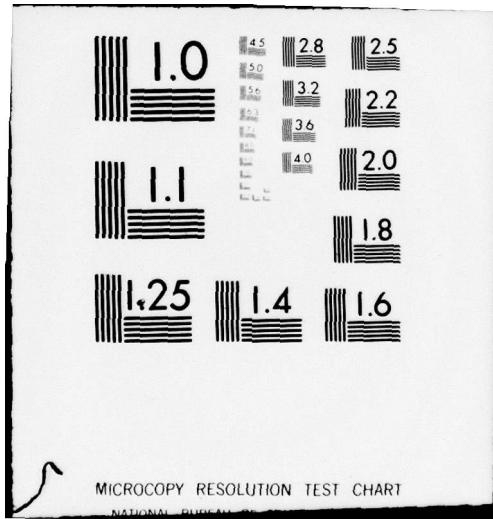
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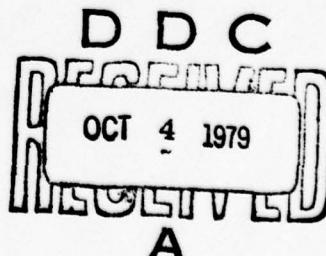
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15. OUTLINE, TABLE OF CONTENTS, SUMMARY, OR EQUIVALENT DESCRIPTION

This catalogue provides a list of infrared sources, detected at wavelength 2.7 micrometer. Confidence is achieved by multiple observations of each listed source and by careful computer processing of the satellite observational data. Every source has been observed on two or more days or at times on the same day, at least 20 min apart. Generally, observed positions are precessed to a common year and averaged whenever two or more measurements are within 45 arc sec of one another. The resulting number of apparent infrared positions exceeds 5000. The halfwidths of 45 arc sec for positional averaging is rather large in order to simplify the data processing logic.

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FOREWORD

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1. INTRODUCTION

The Equatorial Infrared Catalogue, Number 1 (EIC-1, pronounced ICE-ONE) lists positions for 896 sources detected at wavelength 2.7- μm with U.S. Air Force satellite sensors within 10 deg of the celestial equator. EIC-1 together with planned updates will provide a systematic survey of sources with flux densities greater than $4 \times 10^{-16} \text{ W cm}^{-2} \mu\text{m}^{-1}$ in this equatorial zone. The satellite data are processed to provide flux density to a root mean square (rms) precision of 14 percent and positional coordinates to a rms accuracy of 2 arc sec. Positions listed in EIC-1 are computed relative to those of the Astronomische Gesellschaft Katalog 3 (AGK3) (Ref. 1) and the Smithsonian Astrophysical Observatory (SAO) Star Catalogue (Ref. 2). These catalogues use equinox 1950.0 and the coordinate system of The Fourth Fundamental (FK4) Catalogue (Ref. 3).

The systematic positional errors of EIC-1 with respect to a sample of 658 reference stars (500 from the AGK3 and 158 from the SAO) are less than 1.0 arc sec.

2. GENERAL DESCRIPTION

EIC-1, the first in a series of 2.7- μm catalogues, provides a list of infrared sources that is assembled with high confidence. Considerable effort has been expended to deal with the known problem of spurious sources in space infrared surveys. Confidence is achieved by multiple observations of each listed source and by careful computer processing of the satellite observational data. Every EIC-1 source has been observed on two or more days or on the same day at times at least 20 min apart. NASA-GSFC correlation of EIC sources with photographic plate images and multichannel photometry of selected sources with a ground-based infrared telescope will be addressed in a later publication. Selected results of the NASA work appear in References 4 and 5. EIC-1 parameters are given in Table 1.

The development of EIC-1 began with the processing of satellite data recorded in November 1976. The sky coverage at that time emphasized the +8-deg declination band. During the 14.2 hr recording interval, 1.3 hr on the 9th and 12.9 on the 10th, more than 2400 of some 3400 measurements were confined to one deg of declination between +8 and +9 deg.

Subsequent recordings still emphasize northern declinations, which means that the survey will be complete in these zones prior to the others. Table 2 shows by Greenwich date and declination zone the number of measurements processed to make EIC-1. Generally, observed positions are precessed to a common year and averaged whenever two or more measurements are within 45 arc sec of one another. The resulting number of apparent infrared positions exceeds 5000. The halfwidths of 45 arc sec for positional averaging is rather large in order to simplify the data processing logic. Large positional variances are investigated to see that close sources are not merged, but so far no sources within 100 arc sec of each other have been seen. Most of the apparent source positions have not been redetected and hence are omitted from EIC-1. Omitted sources either are spurious or require confirmation by further observation.

Table 1. EIC-1 Parameters

Wavelength	2.7- μ m
Sky Coverage	-10 to +10 deg Declination
Flux Range	4 to $13,489 \times 10^{-16}$ W cm $^{-2}$ μ m $^{-1}$
Precision (rms)	
Flux Density	14 percent
Position	2 arc sec
Observation Time	148 hr
Detector Responses	65,480
Representative Measurements ⁽¹⁾	45,617
Singles	19,278
Doubles	17,098
Triples	4,002
Rejects	5,239
Apparent Sources	5,477
EIC-1 Sources	896
Identified ⁽²⁾	808
Others	88

(1) Up to three individual detector responses are combined to form representative measurements.

(2) EIC-1 sources identified with stars listed in previous visual and infrared catalogues.

Table 2. Satellite Observations by Date and Declination Zone

Year	1976	1976	1977	1977	1977	1977	1977	1978
Day	9 Nov	10 Nov	18 Feb	19 Feb	21 Jul	22 Jul	23 Jul	16 Feb
Observation Time (hr)	1.3	12.9	20.8	19.7	22.8	23.3	23.8	23.4
Declination Epoch 1975.0								
Above +9°	9	2	132	397	541	854	998	585
+6° to +9°	188	2616	4996	4001	2629	3907	2946	4145
+3° to +6°	42	182	989	1177	1026	917	835	736
0° to +3°	29	73	347	382	180	271	250	427
-3° to 0°	5	32	240	215	379	213	279	572
-6° to -3°	0	42	279	205	98	122	167	342
-9° to -6°	10	233	892	426	263	289	832	1766
Below -9°	0	2	84	120	3	11	15	672
Number of Measurements by Date								
	283	3182	7959	6923	5119	6584	6322	9245
							45617	

The lack of uniformity in sky coverage is easily seen in Table 3, which shows the count of sources by 3-deg wide declination zones in two flux density intervals. For comparison, the counts of 2.2- μ m sources are shown from the Two-Micron Sky Survey (generally abbreviated as TMSS) (Ref. 6). If the sky coverage were uniform, approximately equal numbers of EIC-1 sources would be found in the respective declination bands. Every real TMSS source within the declination range of the EIC survey should eventually be included in the EIC. Table 3 provides data on the percentage of TMSS sources (by declination band) that have been observed with the satellite sensors and that meet the criteria for inclusion in EIC-1. The deviations of these numbers from 100 percent (neglecting the small number of possibly spurious sources in the TMSS) constitute an indication of the lack of uniformity in sky coverage of EIC-1. An EIC-1 identification with a TMSS source requires positional coincidence within 180 arc sec; where such identifications are valid the EIC-1 position constitutes a preferred estimate that can be used for further ground-based observations and optical and radio source identification purposes. The number of EIC-1 sources with positions that match SAO catalogue and AGK3 positions to within 18 arc sec, the number that match AFGL (Ref. 7) positions to within 360 arc sec, and the number that match TMSS positions with 180 arc sec, are summarized in Tables 4a and 4b.

Table 4a concentrates on the +8-deg declination zone where EIC-1 is only 76 percent complete to the TMSS flux threshold, since just 60 of the 79 TMSS stars were matched. These 60 represent 44 percent of the EIC-1 stars in the +8-deg zone. The ragged sky coverage will become more and more uniform as additional satellite data are received and processed. Table 4b shows crosscorrelations and coordinate difference statistics for all EIC-1 star matches within 10 deg of the celestial equator. The number of EIC-1 sources that do not match those of any star in these four catalogues is 88. These deserve further study; preliminary observations by S. P. Maran, S. G. Kleinmann and R. Joyce show that some of them have interesting infrared spectra.

Table 3. EIC-1 Sources by Declination Zone and Flux Density Internal

Declination Epoch 1950.0	Flux Density $10^{-16} \text{ W cm}^{-2} \mu\text{m}^{-1}$		EIC-1 Count	TMSS Count	EIC-1 Coverage of TMSS (%)
	3 to 74	75 and More			
Above +9°	28	3	31	*	*
+6° to +9°	309	31	340	175	87
+3° to +6°	186	23	209	164	79
0° to +3°	67	15	82	155	40
-3° to 0°	33	37	70	161	37
-6° to -3°	42	17	59	166	29
-9° to -6°	66	33	99	175	43
Below -9°	4	2	6	*	*
Totals	735	161	896		

*Not of interest in present context

Table 4a. Crosscorrelations for 137 EIC-1 Stars
at Declination +8 deg

Reference Catalogue (Wavelength)	Reference Stars	Matches	Match Criteria (arc sec)
AGK3 (visual)	3284	89	18
SAO (visual)	2073	83	18
TMSS (2.2 μ m)	79	60	180
AFGL (4.2 μ m)	26	20	360

Table 4b. EIC-1 Crossreference and Coordinate Difference Statistics

Reference Catalogue	Declination Zone Epoch 1975.0	Reference Stars	EIC-1 Matches	Average Error *		Standard Deviation (arc sec)
				$\Delta\alpha \cos \delta$	$\Delta\delta$	
AGK3	- 2° to +10°	38, 892	500	-0.4	-0.2	1.1
SAO	-10° to +10°	38, 070	615	-0.5	-0.2	1.3
TMSS	-10° to +10°	1, 124	545 **	-2.2	-0.8	24.8
AFGL	-10° to +10°	401	231 **	8.8	7.7	83.9
						76.2

* Error = (EIC position) - (reference catalogue position)

α = right ascension

δ = declination

** Occurrences of two EIC-1 stars matching single TMSS or AFGL stars are listed below.

EIC-1	TMSS	AFGL
127 & 128	+10119	-
153 & 155	-	1010
458 & 462	-	1809
478 & 479	-	1825
633 & 635	+10353	-
659 & 660	-10424	2164
678 & 679	-	2195

Once a position is matched, additional data from the appropriate reference catalogue matched are appended to the EIC data record. Of particular interest in the associated information are the stellar spectral type and proper motion. The spectral type is obtained from the Henry Draper (HD) Catalogue (Ref. 8) using the HD-SAO-DM Cross Index (Ref. 9) whenever an EIC star is identified with an SAO star in the Cross Index. If not found there, the spectral type is taken from the AGK3, or as a last choice, is from the SAO without use of the Cross Index. Table 5 displays the count of sources by spectral type in two flux density intervals. As expected for the 2.7- μ m EIC wavelength, nearly all the sources are associated with type K and M stars.

Proper motion is obtained from the AGK3 as first choice and the SAO as last choice. The proper motion is not significant for most of the star observed. However, it cannot be ignored completely. The current technique of precessing all positions to a common equinox and then averaging the coordinates may be modified in the future to account for proper motion as the span of time for EIC recordings grows, since several of the stars observed do move more than 1 arc sec per year. The proper motion for stars is always used to determine infrared sensor alignment (discussed below).

Galactic coordinates are computed and listed for each source position. Table 6 shows EIC-1 flux density distribution by galactic latitude zone. As expected for real sources in the Galaxy, their number decreases as the distance from the galactic equator increases.

2.1 EIC PROCESSING STEPS

The EIC-1 listing is produced in three distinct processing steps. The first step is repeated for each digital tape of satellite measurements. After all the tapes in a continuous series are processed through step 1 or the end of an orbital cycle of observations is reached, whichever occurs first, step 2 is performed for the interval just defined. The accumulated outputs from all of the step 2 processing constitute the input to step 3. In step 3, statistics are computed, sources are screened, and catalogue numbers are assigned.

Table 5. Identified EIC-1 Sources by Spectral Type
and Flux Density Interval

Flux Density $10^{-16} \text{ W cm}^{-2} \mu\text{m}^{-1}$	Spectral Type										Type Not Listed	Totals
	O	B	A	F	G	K	M	R	N	S		
75 and above	0	1	0	1	2	28	97	0	5	1	26	161
3 to 74	0	1	6	8	26	300	177	1	2	0	214	735
Totals	0	2	6	9	28	328	274	1	7	1	240	896

Table 6. EIC-1 Flux Density by Galactic Latitude Zone

Galactic Latitude	Flux Density $10^{-16} \text{ W cm}^{-2} \mu\text{m}^{-1}$		
	3 to 74	75 and More	Number of Stars by Galactic Latitude
+50° to +75°	116	24	140
+25° to +50°	160	19	179
0° to +25°	218	38	256
-25° to 0°	155	39	194
-50° to -25°	52	19	71
-75° to -50°	34	22	56
Number of Stars by Flux Interval	735	161	896

2.1.1 Step 1 of 3

The survey is being carried out using infrared and visual wavelength sensors aboard U.S. Air Force satellites. Data processing of a satellite's visual wavelength sensor determines the orientation of that sensor as a function of time where the true positions of the visual stars observed are obtained from the SAO star catalogue (see Figure 1). Approximately 1000 of the brighter SAO stars distributed throughout the sky provide the reference positions to estimate the visual sensor orientation. Digital tapes supply infrared sensor data, visual sensor orientation angles, and satellite location. These input tapes are processed chronologically until the end of an observation interval or a satellite orbital cycle is completed. This processing, referred to as step 1, removes sensor design features, detects apparent celestial sources, and determines the 1975.0 position for each detected source.

The satellite's infrared sensor is a linear array of detectors staggered in position to provide overlapping coverage as the sensor scans across the sky. This configuration produces multiple detections that must be combined to form representative measurements as adjacent detectors may respond to only a fraction of a source image. A representative measurement is computed from up to three single detector responses that are closely spaced in time and position. Representative time is the time of the maximum flux measurement, representative flux density is the maximum flux measurement, and representative position is computed as a weighted average using flux density weighting and the midpoints of responding detectors. Of the 45,617 representative measurements available for EIC-1, only 29,285 are associated with sources listed in EIC-1.

An apparent celestial source is detected as follows. Detector responses collected over a span of several minutes of sky observation are processed as a group where each response is checked for neighbors in position and time. An apparent celestial source detection is achieved when three responses are found within a 40 by 40 arc sec sky area and the time between the first and last of these responses is no more than 32 sec. All responses in the group being processed that fall within the sky area of the detection are then combined as appropriate to form representative measure-

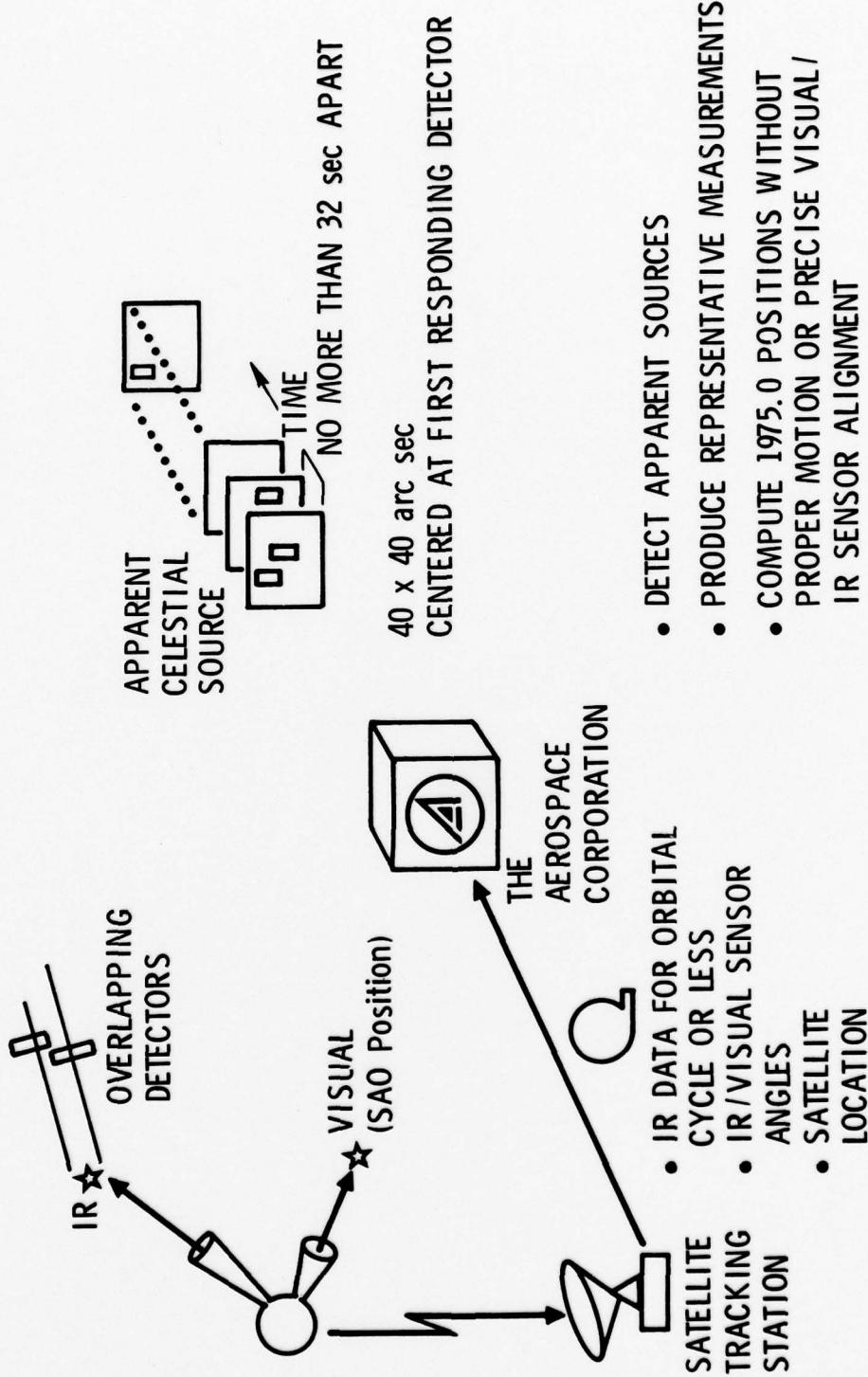


Figure 1. EIC Processing - Step 1 of 3

ments. As many as three responses can be combined to form a single representative measurement, however, most measurements are computed from just one or two responses. The 29,285 representative measurements associated with EIC-1 sources resulted from 47,868 detector responses: 12,404 singles, 13,595 doubles, and only 2758 triples.

Observed positions are transformed from sensor coordinates to celestial coordinates using an approximate transformation between the visual and infrared reference systems. This approximation is removed in step 2.

Correction for annual aberration, nutation, and precession from the day of observation to the nearest year (e.g., to 1977.0) is made using Independent Day Numbers as listed in the American Ephemeris and Nautical Almanac for the appropriate year and day. A correction for precession from the nearest year to 1975.0 coordinates is then made using the equations and constants of The Explanatory Supplement to the Astronomical Ephemeris and American Ephemeris and Nautical Almanac. These same equations and constants are used to precess reference star positions from 1950.0 to 1975.0 for sensor alignment estimation in step 2. Representative measurements produced by successive executions of step 1 processing are merged, then ordered by right ascension in preparation for step 2.

2.1.2 Step 2 of 3

Step 2 processing (see Figure 2) corrects for two different kinds of positional errors. The first of these errors and smaller of the two is the correction for aberration due to satellite orbital velocity ("orbital aberration"). It is a function of the satellite's position and velocity with respect to the center of the earth. More important is the correction for sensor alignment, which is required due to variations in the satellite's temperature. Temperature variations cause a slow change in the optical alignment of one sensor with respect to another. The alignment drift is estimated by determining values for two angles defining the infrared sensor positional deviation from a satellite reference frame whose orientation in space is known by way of the visual star sightings.

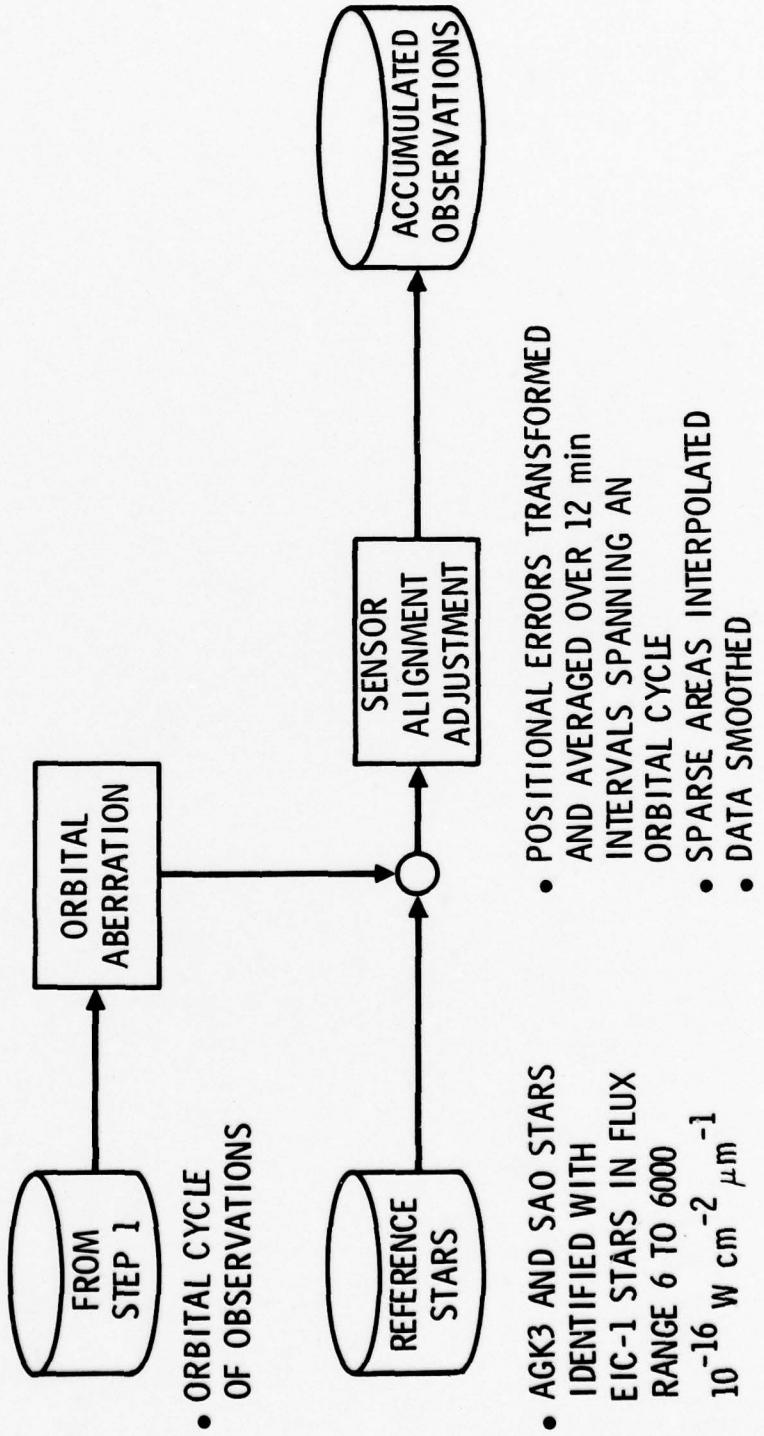


Figure 2. EIC Processing - Step 2 of 3

A typical plot of infrared sensor angular deviation from its satellite reference frame over a complete orbital cycle is given in Figure 3. Corrections to these angles are estimated for each orbit since changes greater than 1 arc sec can occur. These angles and the corrections are very small so that no significant loss of precision is noticed when small angle approximations are used in the transformation of errors in right ascension and declination to those in the satellite reference frame, or the use of each angle in radians to represent its sine and a value of unity for its cosine. These last approximations are used in the equation seen in Figure 3.

The selection of reference stars for this processing was done iteratively. Any EIC star with multiple observations is used if it is found in either the AGK3 or SAO catalogue and it is not too bright or too faint (see below). To initialize the process, SAO stars of spectral type M in the EIC declination range were used. Bright stars cause extraneous sensor responses and faint stars are too easily associated by chance with thermally induced noise fluctuations in the infrared sensors. The growing set of reference stars currently is composed of 615 stars in the flux range of 6 to $6000 \times 10^{-16} \text{ W cm}^{-2} \mu\text{m}^{-1}$, 470 AGK3 stars and 145 SAO stars (434 of the AGK3 stars are also SAO stars). When a star is found in both catalogues, AGK3 positional coordinates are used. EIC-1 sources with fluxes outside the above range are not suitable for use as reference stars.

Observed positional errors are averaged in 12-min intervals spanning an orbital cycle and then smoothed using a five-point moving average before application to correct the observed positions. However, any interval with fewer than five measurements is treated as if no measurements were made. Intervals with no measurements are supplied values using linear interpolation between surrounding intervals with sufficient measurements.

It should be noted that proper motion must be accounted for in this processing step because 184 of the reference stars would have positional errors greater than one sec of arc if it were ignored and, consequently, the sensor alignment correction would be degraded. Proper motion is added to each

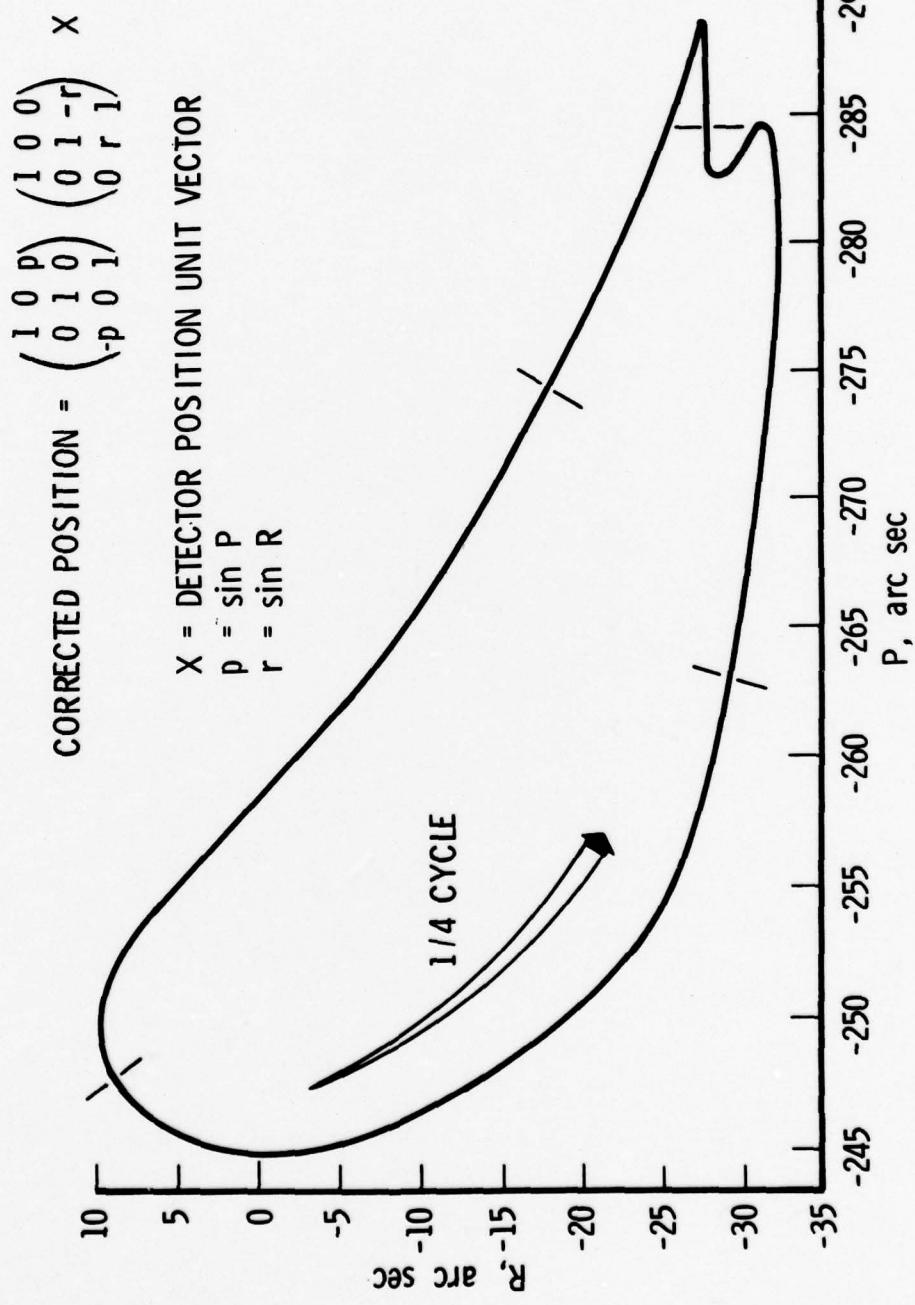


Figure 3. Typical Alignment Angular Variation

SAO star from 1950.0 to the date of the satellite observation and to each AGK3 star from its listed date of observation to the date of satellite observation. Precession to epoch 1975.0 has already been accounted for at this point in the processing. Step 2 processing outputs are accumulated to form the input to step 3.

2.1.3 Step 3 of 3

Observations input to step 3 are ordered to facilitate the computation of statistics. The observations are ordered by right ascension first, then reordered locally by declination whenever two or more stars have observations interlaced with respect to right ascension alone. The ordered observations are then processed serially to determine various statistics: average position and flux, standard deviations, and flux summaries.

Next, high confidence sources are screened (see Figure 4). Stars seen on two or more days or twice on the same day at times 20 min or more apart are considered for further processing. A measurement not associated with a multiply observed source is either marked as bad or not marked at all, but held for subsequent processing together with future observations. Bad data must be recognized and flagged. Some satellites have two linear arrays of detectors with overlapping sensitivity ranges and when a star is seen that exceeds either sensitivity range, bad data are produced. A few stars exceed the limits of both arrays. Bright stars produce a fringe of low-level spurious detections that must be recognized and eliminated. Each flux density measurement with a value less than 60 percent of the average flux observed for a source on a given date, or less than 20 percent of the overall average flux, is assumed to be associated with this low-level fringe or other extraneous responses. The average flux for each observational interval is computed sequentially during this processing. This logic eliminated nearly 10 percent of the representative measurements. The moon and Venus were observed, but neither of them is found at the same positions in the sky at times 20 min or more apart in the satellite data, nor are they of interest in the present context, so they do not

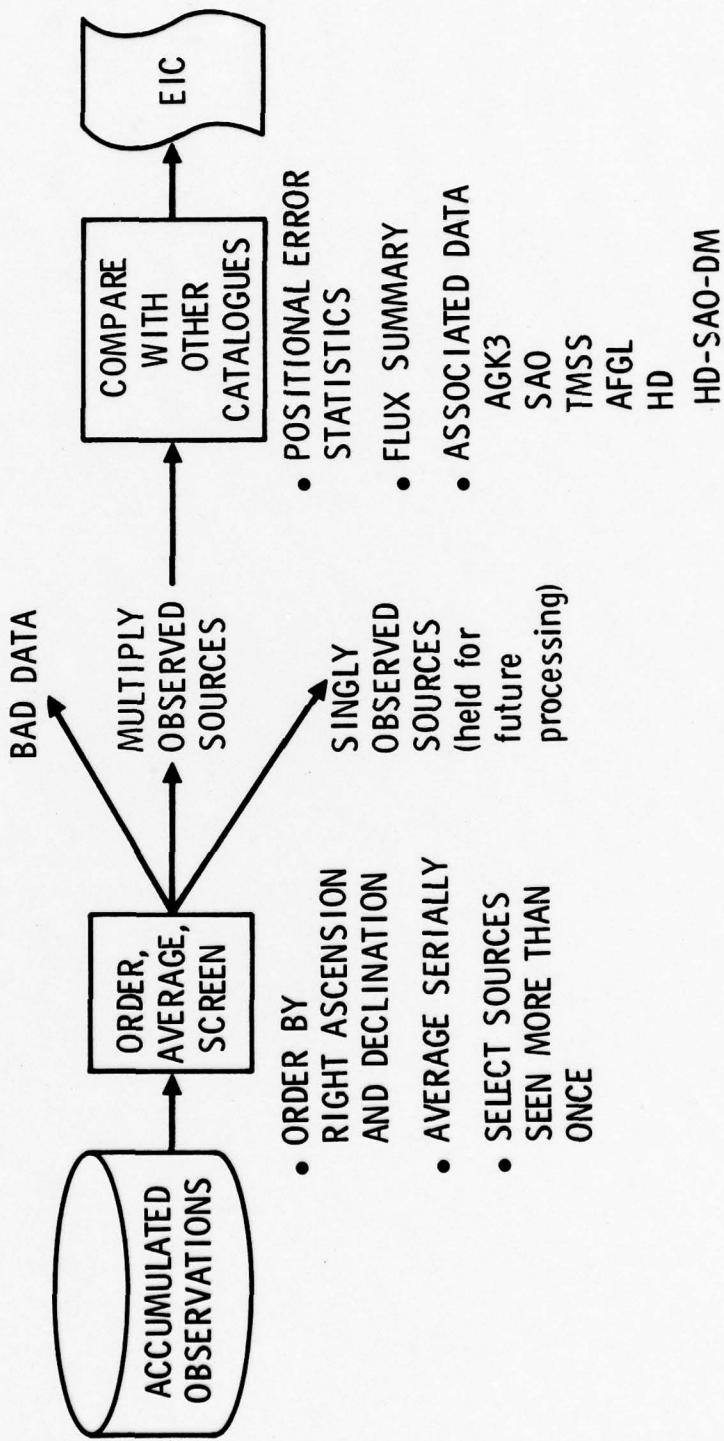


Figure 4. EIC Processing - Step 3 of 3

appear in EIC-1. Finally, comparisons are made to star positions listed in other catalogues and the EIC-1 star numbers are assigned. Star positions are compared in 1975.0 coordinates including a correction for proper motion whenever the EIC-1 star has been identified with an AGK3 or SAO star. Proper motion is not used in the calculation of 1950.0 positions listed for the stars in EIC-1. Catalogue star numbers are assigned after ordering the stars by right ascension in 1950.0 coordinates.

3. SUMMARY

The completeness of this survey to a given flux density level is not known. Although the satellite sensors were known to be operating while pointing at the sky and a fundamental threshold is known for each sensor, insufficient information is provided in the recorded data received for EIC processing to explain why certain expected measurements are not present. Complex satellite and ground station processing algorithms operate on the sensor data prior to it being recorded. Sensor data is lost to the EIC processing whenever adaptive threshold logic raises thresholds while controlling the data rate and also when the ground processing is too busy to record sensor pointing data. About once every 30 min, a 25-sec block of pointing data is found to be missing on the data tapes.

In EIC-1 a measure of the completeness to the threshold level of the TMSS was made by comparing positional coordinates. For EIC-2 an additional measure will be added. The sky within 10 deg of the celestial equator will be divided into 1-deg squares and the minimum recorded flux level for each square will be displayed. EIC-2 will also include the results of processing satellite data recorded back in December of 1975 as well as some recorded in March and June of 1978, all in addition to the reprocessing of EIC-1 data. The experience gained in the production of EIC-1 will be used to adjust parameter values in the EIC star detection algorithms in an effort to minimize data loss. Some stars detected during the very early stages of EIC development are no longer detected yet they have been confirmed as real by ground-based telescope observation.

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COLUMN HEADINGS FOR EIC-1

EIC	<u>Star Number</u>
	EIC-1 star numbers are assigned in right ascension order for 1950.0 coordinates.
RA, DEC	<u>Coordinates</u> Measured right ascensions and declinations of the EIC-1 sources, corrected as described in the text and precessed to equinox 1950.0. Right ascension is listed in hours, minutes, seconds of time and declination is listed in degrees, minutes, seconds of arc.
FL	<u>Flux Density</u> The flux density is the average of the 2.7- μ m representative measurements in units of $10^{-16} \text{ W cm}^{-2} \mu\text{m}^{-1}$.
SDRA, SDDC, SDFL	<u>Standard Deviations</u> The sample standard deviations are listed for RA, DC, and FL. The right ascension standard deviation is listed in seconds of time; the declination standard deviation, in seconds of arc; and the flux density standard deviation, in units of $10^{-16} \text{ W cm}^{-2} \mu\text{m}^{-1}$.
OBS	<u>Number of Observations</u> The number of observations used in computing the tabulated values of right ascension, declination, and flux density.
1234	<u>Observation Interval and Flux</u> Each column corresponds to an observation interval given below. A ":" means no observations for that interval. Other symbols represent the infrared flux in 10 percent steps of the average value (given under the heading FL). For example, "A," the tenth symbol, means $(1.0 \text{ FL}) \pm 5\%$, "5" means $(0.5 \text{ FL}) \pm 5\%$, "P," the 25th symbol, means $(2.5 \text{ FL}) \pm 5\%$, and so forth. For reference,

	0	1	2	3	4	5	6	7	8	9
00		1	2	3	4	5	6	7	8	9
10	A	B	C	D	E	F	G	H	I	J
20	K	L	M	N	O	P	Q	R	S	T
30	U	V	W	X	Y	Z	*			

The "*" means greater than $(3.5 \text{ FL}) \pm 5\%$.

Observation Interval	Start Date	Stop Date	Observation Time (hr)
1	9 Nov 1976	10 Nov 1976	14.2
2	18 Feb 1977	19 Feb 1977	40.5
3	21 Jul 1977	23 Jul 1977	69.9
4	16 Feb 1978	16 Feb 1978	23.4

EAG, ESA, ETM, EAF The distance between EIC coordinates and AGK3 coordinates is listed under the heading EAG. Similarly, SAO, TMSS, and AFGL coordinate differences are listed under the headings ESA, EIR, and EAF, respectively. The distance is the great circle arc distance, given in arc sec, EIC minus the other position.

TYPE The value for spectral type is obtained as described in the text from HD, AGK3, or SAO.

L, B Galactic Coordinates

The galactic longitude (L) and the galactic latitude (B) in degrees are computed based on the following definitions for right ascension and declination of the galactic north pole (α_G , δ_G) and the galactic longitude of the celestial north pole (L_G) for a given year (YEAR).

$$\alpha_G = 12^{\text{h}}49^{\text{m}} + 8^{\text{h}} 13 \times 10^{-4} (\text{YEAR}-1950)$$

$$\delta_G = 27^{\circ} 4 - 5^{\circ} 44 \times 10^{-3} (\text{YEAR}-1950)$$

$$L_G = 123^{\circ} - 1^{\circ} 33 \times 10^{-3} (\text{YEAR}-1950)$$

- SAO, Associated star numbers from the SAO, AGK3, TMSS, AFGL, or HD.
AGK3,
TMSS,
AFGL,
HD
- DM Durchmusterung indication, zone, and number. Indication is
abbreviated as BD for Bonner, CD for Cordoba, and CP for Cape
Photographic. DM data are obtained from the HD-SAO-DM Cross
Index or the AGK3, in that order of preference.

Table 7.

EIC-1

EIC	R.A.1950	DEC.1950	SDRA	SDOC	FL	SDFL	085	1234	B	TYPE	AGK3	EAG	SAO	USA	TMSS	ETM	AFGL	EAF	...DM...	HD		
1	00 04 28.36	-05 00 34.2	-05 00 34.2	-05 00 34.2	12	2	13	103.0	-55.9	MA	+050036	1.4	109013	1.2					ED+04 5089	223		
2	00 05 44.09	-05 06 07.9	-05 06 07.9	-05 06 07.9	11	1	10	A.B	-69.0	KD	128604	1.2							ED+09	5		
3	00 11 59.18	-09 03 23.8	-09 03 23.8	-09 03 23.8	173	27	66	BAAA	-68.8	MA	128655	.7	-10005	10	37	30	ED+08	C6	1016			
4	00 16 52.68	-04 06 03.6	-04 06 03.6	-04 06 03.6	128	18	109.0	-70.2	KD	+060027	1.4	109145	.5					ED+09	48			
5	00 17 30.64	-10 06 05.4	-10 06 05.4	-10 06 05.4	15	2	17	B9.	-55.7	KD	+060054	2.5	109146	2.9	00007	22			ED+05	34		
6	00 17 35.54	-11 02 45.9	-11 02 45.9	-11 02 45.9	21	2	6	A..	-107.7	MA	+070054	2.4	109152	2.0	+10003	18			ED+07	37		
7	00 18 01.17	-29 04 47.5	-29 04 47.5	-29 04 47.5	33	4	56	F5.	-53.9	KD	+070055	.8	109195	.3					ED+06	36		
8	00 23 07.19	-27 07 24.5	-27 07 24.5	-27 07 24.5	54	1	9	CB.	-111.9	KD	+070057	1.7	-10009	22	66	164	ED+07	43				
9	00 24 33.38	-24 06 52.2	-24 06 52.2	-24 06 52.2	185	29	47	AAA	-106.1	-68.7	MA	128767	1.3					ED+07	2140			
10	00 34 55.69	-11 02 52.1	-11 02 52.1	-11 02 52.1	11	1	6	B9.	-59.6	KD	+020056	1.5	109315	1.6					ED+02	2326		
11	00 42 20.73	-23 02 55.39	-23 02 55.39	-23 02 55.39	27	3	6	B9.	-119.7	HA	+020074	1.7	00011	17					ED+02	4245		
12	00 45 43.76	-07 01 39.0	-07 01 39.0	-07 01 39.0	14	1	21	9.A	-121.6	KD	+070055	.8	109474	1.0	+10007	13	111	87	ED+06	107		
13	00 46 05.18	-27 07 19.5	-27 07 19.5	-27 07 19.5	126	23	301	QAS3	-121.7	-55.3	KD	-010073	1.2	109099	1.4	00013	14	123	43	ED+01	114	
14	00 50 26.97	-01 24 55.8	-01 24 55.8	-01 24 55.8	114	13	31	AAA	-123.8	64.0	KD	+060097	1.7	109551	1.7	+10008	26			ED+05	131	
15	00 57 13.82	-34 06 12 49.6	-34 06 12 49.6	-34 06 12 49.6	61	1	7	CB9.	-126.7	MA	+06027	1.3	+10009	23	ED+07	153			ED+07	5020		
16	01 00 20.46	-34 07 37 17.0	-34 07 37 17.0	-34 07 37 17.0	44	4	115	AAA	-127.9	-54.9	KD	109627	1.3					ED+07	6186			
17	01 02 16.94	-37 05 23 17.1	-37 05 23 17.1	-37 05 23 17.1	29	4	24	DAA.	-116.1	6.9	MA	+050127	1.6	109556	1.8	+10010	22			ED+04	172	
18	01 11 34.77	-07 02 52.4	-07 02 52.4	-07 02 52.4	7	2	7	..A	-132.8	-55.1	KD	+050136	3.7					ED+05	179			
19	01 17 09.39	-31 05 53 57.6	-31 05 53 57.6	-31 05 53 57.6	5.0	27	3	BAA.	-135.6	-56.0	MA	+050149	1.0	109810	1.0	+10015	23			ED+05	168	
20	01 21 31.07	-19 03 26 32.2	-19 03 26 32.2	-19 03 26 32.2	19	16	27	A9.B	-149.6	-69.5	KD	+070162	1.2	109507	1.7	-10021	15	210	57	ED+05	244	
21	01 25 45.62	-27 07 02 09.0	-27 07 02 09.0	-27 07 02 09.0	9	1	11	..AA	-138.5	-53.8	KD	+050168	1.0	109926	1.7	+10017	13	224	55	ED+05	9512	
22	01 27 39.14	-27 05 53 09.9	-27 05 53 09.9	-27 05 53 09.9	64	8	41	EE9.	-140.1	-55.4	KD	+050178	3.6	109934	4.0	00019	2	226	120	ED+05	194	
23	01 30 28.04	-39 02 37 25.6	-39 02 37 25.6	-39 02 37 25.6	5.3	40	11	..A.	-141.9	-56.5	HD	+070158	3.6	109934	4.0	00019	2	226	120	ED+05	222	
24	01 30 40.72	-44 07 57 05.6	-44 07 57 05.6	-44 07 57 05.6	3.4	11	1	43	AA.	-140.4	-53.2	KD	+070171	3.3	109564	.3					ED+07	9203
25	01 34 05.99	-34 07 34 36.1	-34 07 34 36.1	-34 07 34 36.1	5.5	7	104	BA9	-142.0	-53.4	MA	+070181	1.3	110011	1.3	*10019	12	236	29	ED+07	240	
26	01 38 49.48	-34 05 14 04.9	-34 05 14 04.9	-34 05 14 04.9	4.1	16	37	AA9.	-145.1	-55.2	KD	+070185	1.7	110065	1.7	+10020	21	243	69	ED+04	10180	
27	01 42 00.50	-25 02 58 21.0	-25 02 58 21.0	-25 02 58 21.0	3.9	18	2	8..B9.	-147.9	-57.1	KD	+020181	2.3	110104	2.2	+00025	16	ED+02	259			
28	01 45 50.49	-16 03 26 11.0	-16 03 26 11.0	-16 03 26 11.0	10	1	5	BA.	-149.2	-56.3	GS	+050215	1.5	110136	1.2					ED+02	270	
29	01 51 53.93	-23 04 23 00.8	-23 04 23 00.8	-23 04 23 00.8	40	5	24	..A9.	-150.9	-54.7	MA	+00028	6								11037	
30	01 57 34.89	-33 06 40 34.6	-33 06 40 34.6	-33 06 40 34.6	4.5	16	3	..A.	-151.5	-52.1	KD	+060214	1.4	110268	1.0					ED+05	314	
31	01 57 57.88	-24 03 45 55.0	-24 03 45 55.0	-24 03 45 55.0	369	50	67	A3A	-167.4	-65.3	MB	+070224	.5	109526	.5	-10035	12	287	68	ED+09	360	
32	02 00 00.26	-25 07 26 11.0	-25 07 26 11.0	-25 07 26 11.0	3.3	185	27	BAB	-151.8	-51.2	MB	+080229	.7	110274	.8	+10025	18	292	233	ED+06	319	
33	02 03 33.35	-43 08 00 35.6	-43 08 00 35.6	-43 08 00 35.6	2.9	67	7	115	BA.	-152.7	-50.3	MB	+080229	1.7	110337	2.9	+10027	23			ED+07	12872
34	02 05 09.57	-27 05 14 51.0	-27 05 14 51.0	-27 05 14 51.0	4.0	14	2	11..A.	-154.9	-55.1	KD	+050229	3.2	110355	2.5					ED+05	265	
35	02 11 25.36	-23 09 17 51.3	-23 09 17 51.3	-23 09 17 51.3	3.6	16	1	29..A9.	-174.0	-63.4	KD	127765	2.1							ED+09	429	
36	02 15 38.37	-38 05 28 22.8	-38 05 28 22.8	-38 05 28 22.8	4.0	11	1	13..EA.	-157.9	-50.1	MA	+060241	1.7	110455	2.1					ED+06	344	
37	02 16 49.02	-17 03 12 19.8	-17 03 12 19.8	-17 03 12 19.8	2.3	3391	1399	..DSE	-162.8	-46.8	KD	+070281	1.0	110640	.3	00030	7	318	46	ED+03	153	
38	02 19 22.72	-22 00 10 03.7	-22 00 10 03.7	-22 00 10 03.7	3.0	124	17	AC3	-164.9	-54.9	MB	+080203	1.4	110455	1.4	00031	22	321	98	ED+00	355	
39	02 26 19.64	-31 03 09 24.1	-31 03 09 24.1	-31 03 09 24.1	3.1	61	7	..A.	-165.0	-47.3	MB	+030271	1.4	110553	1.6					ED+07	12872	
40	02 32 24.91	-24 07 15 10.8	-24 07 15 10.8	-24 07 15 10.8	4.3	10	0	1..A.	-162.6	-47.6	KD	+070278	2.6	110625	2.9					ED+06	393	
41	02 33 23.11	-34 06 39 32.7	-34 06 39 32.7	-34 06 39 32.7	3.6	11	1	8..EA.	-163.4	-45.6	MA	+060271	1.0	110636	1.0					ED+05	16160	
42	02 33 32.13	-28 03 02 54.2	-28 03 02 54.2	-28 03 02 54.2	3.6	100	16	..A8.	-179.9	-58.6	KS	130004	.3	-10037	2.0	354	70			ED+04	487	
43	02 33 55.74	-33 07 30 46.4	-33 07 30 46.4	-33 07 30 46.4	3.7	11	1	..A.	-162.8	-46.8	KD	+070281	1.0	110640	2.5					ED+07	16210	
44	02 49 47.01	-20 08 28 17.0	-20 08 28 17.0	-20 08 28 17.0	3.1	154	30	..A9.	-165.2	-55.8	HB	+080284	.5	110455	6.1	439	29	ED+03	605			
45	02 53 59.96	-25 09 05 51.3	-25 09 05 51.3	-25 09 05 51.3	3.4	94	13	41..AAB	-187.2	-55.3	KD	+060329	2.4	110102	2.5					ED+07	15355	
46	02 54 27.14	-27 04 18 01.4	-27 04 18 01.4	-27 04 18 01.4	4.4	109	16	40..A9B	-171.5	-46.2	HA	+040310	.7	110065	1.3	00036	1	419	45	ED+03	419	
47	02 59 39.64	-20 03 53 37.6	-20 03 53 37.6	-20 03 53 37.6	2.5	1324	184	..A9.	-173.3	-45.6	MA	+060327	1.0	111340	1.0					ED+04	1834	
48	03 04 04.96	-26 06 16 50.2	-26 06 16 50.2	-26 06 16 50.2	3.0	178	27	..A.	-165.9	-51.6	MA	+060329	2.4	110284	2.5					ED+04	15349	
49	03 05 57.71	-57 08 16 50.1	-57 08 16 50.1	-57 08 16 50.1	3.3	9	0	7..A.	-170.8	-41.3	GS	+060334	1.1	111044	1.8	+10043	9	461	114	ED+06	478	
50	03 09 46.74	-39 06 28 26.0	-39 06 28 26.0	-39 06 28 26.0	4.0	27	3	35..B9.	-173.4	-42.0	GS	+060334	5.7	11044	1.6	00043	21	494	92	ED+01	569	
51	03 12 50.54	-19 01 30 06.6	-19 01 30 06.6	-19 01 30 06.6	3.6	42	5	..A.	-179.0	-44.9	GS	+010355	5.7								19926	
52	03 28 09.59	-19 02 06 27.7	-19 02 06 27.7	-19 02 06 27.7	4.3	3	6	..A.	-165.4	-44.3	GS	+040372	1.0	111340	1.0					ED+04	23878	
53	03 37 49.36	-39 04 57 54.0	-39 04 57 54.0	-39 04 57 54.0	3.8	11	2	8..B9.	-181.1	-39.1	GS	+060359	1.7	111407	1.3					ED+04	571	
54	03 43 2																					

ETC	R.A.1950	DEC.1950	SDOC	FL	SDF	0BS	L	B	TYPE	AGK3	EAG	SAO	ESA	TMSS	ETH	AFGL	EAF	...DM...	HD
56 03 48 54.66	.18	-01 31 12.3	2.5	130	18	.36	.49B	189.9	-39.8	MC	-010356	1.2	130773	1.4	00050	17	BD-01 546	26244	
57 04 01 24.38	.18	+02 24 04.3	5.4	45	4	16	.AA.	188.2	-35.0	AA.	200.3	-39.6	MC	130984	3.0	-10061	27		
58 04 06 30.31	.30	-08 13 56.2	6.4	60	6	10	.AA.	180.3	-30.0	AA.	186.7	-30.4	MC	111647	.3	+10055	64	80-08 797	
59 04 08 36.33	.27	+08 09 33.8	3.3	18	2	33	.AA	184.0	-30.4	AA.	186.7	-30.4	HS	111700	.7			26258	
60 04 13 00.02	.40	+06 06 21.2	4.9	16	2	26	.AA	185.2	-29.3	AA.	185.2	-29.3	HS				BD+07 610		
61 04 13 24.24	.28	+07 48 21.2	3.4	9	1	11	.AA	187.6	-29.5	AA.	187.6	-29.5	GS	111756	2.0			BD+05 616	
62 04 16 01.15	.31	+06 00 43.5	4.5	10	1	7	.AA	187.6	-28.2	AA.	190.0	-28.2	HS				BD+05 631		
63 04 26 59.61	.23	+05 03 21.1	4.8	58	7	32	.AA	195.3	-30.6	AA.	195.3	-30.6	KO	-000492	5.0	131270	5.0	00061 45	
64 04 29 19.03	.27	-00 08 54.2	4.7	43	3	5	.AA	195.3	-25.4	AA.	190.4	-25.4	HS	-000493	5.0	131315	-10070	30 598 15	
65 04 31 46.84	.28	-08 20 04.5	3.0	146	23	102	.AA	204.1	-34.2	AA.	190.4	-34.2	MA	131317	1.8	-10069	21	80-06 897	
66 04 31 48.04	.04	-06 56 28.3	1.1	23	4	5	.AA	202.6	-32.3	AA.	201.3	-32.3	HS				29064		
67 04 33 44.61	.20	-05 22 22.0	2.3	36	0	6	.AA	202.6	-24.7	AA.	188.4	-24.7	HS	-00072	6.0	104 188		BD-07 841	
68 04 35 31.63	.38	+08 14 12.8	3.6	90	16	138	.AA	188.4	-25.4	AA.	189.9	-25.4	HA	+060483	.7	111950	.8	+10066 43	
69 04 36 04.91	.27	+06 43 19.2	4.8	28	4	28	.AA	189.9	-25.4	AA.	190.4	-25.4	HS	+10067	10			29480	
70 04 39 40.03	.31	+06 47 00.6	3.6	36	7	39	.AA	190.4	-24.7	AA.	190.4	-24.7	HS	+10058	14	619 45			
71 04 47 03.30	.32	+06 52 31.8	4.4	41	5	57	.AA	191.5	-23.1	AA.	191.5	-23.1	F8	112106	2.1	+10071	31	BD+06 762	
72 04 48 19.96	.30	+07 36 50.4	4.3	6	1	9	.AA	191.0	-22.4	AA.	191.0	-22.4	HO	+070527	2.3	112135	1.8	BD+07 737	
73 04 49 37.48	.52	+08 26 06.2	1.7	10	2	11	.AA	190.4	-21.7	AA.	190.4	-21.7	HO	+070500	2.9	112179	4.1	647 107	
74 04 50 46.15	.19	+02 25 36.8	4.5	121	19	46	.AA	196.1	-24.7	AA.	196.1	-24.7	HO	+070537	2.1	112203	1.7	+10074 16	
75 04 52 05.30	.32	+07 41 56.0	3.9	27	3	34	.AA	191.4	-21.6	AA.	191.4	-21.6	KO	+010513	4.6	112281	4.3	00065 12	
76 04 55 57.21	.26	+01 38 24.3	3.6	96	21	10	.AA	197.6	-24.0	AA.	197.6	-24.0	KO	+010513	4.6	112281	4.3	00065 12	
77 04 58 29.54	.38	+05 15 59.0	3.9	12	1	12	.AA	194.5	-20.7	AA.	194.5	-20.7	HO	+010526	3.3	112406	.3	00066 24	
78 04 59 03.42	.37	+06 35 36.2	2.1	24	2	15	.CA	193.5	-22.8	AA.	199.0	-22.8	NB	+003494	3.0	112450	1.1	00067 35	
79 05 02 43.64	.20	+01 06 37.4	3.1	507	79	48	.AA	199.0	-22.8	AA.	199.0	-22.8	HO	+070574	2.9	112450	1.1	BD+07 812	
80 05 04 17.75	.15	+03 28 57.3	3.1	60	6	7	.AA	199.8	-22.9	AA.	199.8	-22.9	HO	+050567	1.7	112512	1.4	ED+08 852	
81 05 22.14	.47	+07 50 03.4	2.7	7	2	9	.AA	193.2	-18.8	AA.	193.2	-18.8	KO	+020548	3.2	112528	3.0	00058 16	
82 05 09 08.88	.48	+06 32 55.6	3.7	8	1	17	.AA	193.1	-17.6	AA.	193.1	-17.6	KO	+020559	1.4	131905	1.1	00070 18	
83 05 09 26.18	.22	+06 48 00.0	4.0	12	1	10	.AA	196.7	-16.5	AA.	196.7	-16.5	KO	+050586	1.0	112556	1.0	+10079 7	
84 05 10 40.22	.30	+02 49 10.0	4.3	57	0	6	.AA	198.5	-20.3	AA.	198.5	-20.3	HO	+020559	1.0	10079	.8	ED-00 630	
85 05 12 03.67	.36	-00 37 00.7	2.1	147	18	62	.AA	201.9	-16.7	AA.	201.9	-16.7	HO	+050586	1.0	112556	1.0	3.055 3	
86 05 12 04.41	.27	+05 06 07.7	4.8	31	3	13	.CA	196.6	-18.8	AA.	196.6	-18.8	B6P	131907	.8	-10085	12	710 190	
87 05 12 07.86	.22	-08 15 29.5	2.5	248	31	69	.AA	209.2	-25.2	AA.	209.2	-25.2	HO	+080589	1.9	112652	1.5	BD+08 928	
88 05 12 29.61	.27	+05 38 31.2	3.6	11	1	11	.AA	195.4	-18.0	AA.	195.4	-18.0	HO	+080589	1.9	112652	1.5	BD+08 928	
89 05 18 05.37	.40	+08 38 31.2	3.6	8	1	20	.AA	194.3	-15.7	AA.	194.3	-15.7	K2	+080589	1.9	112652	1.5	BD+08 928	
90 05 18 31.15	.32	+07 44 24.4	3.5	46	2	56	.AA	195.5	-16.3	AA.	195.5	-16.3	HO	+10093	1.5			36657	
91 05 21 31.84	.34	-07 51 09.7	4.9	68	11	55	.AA	210.0	-23.0	AA.	210.0	-23.0	KO	132067	3.6	-10063	22	BD-07 1064	
92 05 22 02.20	.18	-06 11 28.3	3.1	103	8	18	.AA	208.4	-22.1	AA.	208.4	-22.1	HO	132074	.8	-10091	85	740 95	
93 05 22 26.87	.22	+06 39 02.5	4.5	35	7	26	.AA	196.9	-16.0	AA.	196.9	-16.0	B2	112740	2.0	+10084	3	BD+06 919	
94 05 25 39.26	.37	+03 39 02.5	3.0	50	6	201	.AA	195.3	-14.1	AA.	195.3	-14.1	KO	+050596	3.1	112163	.7	+0074 57	
95 05 26 32.61	.23	-06 43 51.9	2.7	302	76	48	.C59	207.6	-20.5	HO	-010560	1.9	112176	1.2	+0075 9				
96 05 27 11.56	.22	-01 07 47.2	2.6	40	40	40	.AA	204.3	-18.6	K5	+070626	.7	112896	1.2	112896				
97 05 29 13.14	.32	+07 34 39.7	3.3	42	7	60	.AA	196.7	-13.9	N	+070626	.7	112896	1.2	112896				
98 05 30 31.68	.36	-07 07 08.4	4.6	69	15	66	.C99	197.3	-13.8	KO	+050618	.3	112986	1.2	112986				
99 05 30 35.83	.40	+08 16.2	3.5	13	13	13	.AA	196.0	-13.1	KO	+050620	1.6	112927	1.4	+10090 23				
100 05 32 32.66	.25	+08 40 05.9	3.2	130	20	502	.ACB	196.2	-12.6	HO	+050620	1.6	112927	1.4	+10090 23				
101 05 35 06.95	.22	-01 47 59.2	4.1	116	28	11	.AA	205.9	-17.2	HO	+050620	1.6	112927	1.4	+10090 23				
102 05 35 39.20	.54	-08 27 36.5	5.3	8	20	.BBB	196.7	-12.0	HO	+050620	1.6	112927	1.4	+10090 23					
103 05 39 53.15	.17	+01 27 10.8	3.7	36	0	4	.AA	203.5	-14.6	HO	+050611	4.3	113056	4.3	00083 31				
104 05 46 02.35	.48	+07 51 42.1	2.8	7	2	6	.AA	198.6	-10.1	KO	+070658	3.7	113165	1.1	ED+07 1016				
105 05 49 50.32	.21	+01 50 35.5	3.6	63	7	5	.AA	204.4	-12.2	KO	+010650	3.8	113220	4.5	00069 33				
106 05 51 11.68	.31	-09 26 15.0	3.6	29	4	71	.AA	198.7	-8.7	HO	+050664	.7	113083	9	ED+08 113				
107 05 51 38.35	.25	+03 13 02.2	5.8	13	18	18	.Q5	203.4	-11.2	KO	+050717	2.8	113253	3.6	ED+07 1071				
108 05 52 27.76	.15	+07 23 56.0	2.5	13489	168	142	.AAA	199.8	-9.0	MA	113271	1.4	+10100	3	836 60				
109 05 56 21.57	.66	+08 55 37.9	5.3	1	24	.AA	199.9	-7.4	K5	+080677	1.1	113324	1.1	ED+08 1131					
110 05 59 15.81	.25	-02 21 11.5	3.8	276	56	35	.BBB	199.9	-12.1	HO	-020155	.3	112754	.3	00096 41				

	R.A.1950	SRA	DEC.1950	SDDC	FL	SDFL	OBS	B	TYPE	AGK3	E&G	SAO	TMSS	ETM	AFGL	EAF	...DM...	HD
111 05 59 27.21 .38	+08 27 07.5	3.2	22 3 34	.AA.	199.7	-6.9		K2	+070708	6.1	113602	7.2	+10104	2	BD-07 1103	41079		
112 06 00 26.87 .53	+07 37 42.2	4.3	10 1 11	.AA.	200.6	-7.1		K2	+070715	2.9	113440	2.2			ED+07 1121	41459		
113 06 02 52.94 .30	+07 32 32.6	4.8	10 0 7	.BA.	200.9	-6.6		K5	+080710	2.1	113525	2.5			ED+07 1120	42217		
114 06 07 04.55 .40	+08 45 16.2	3.5	9 1 22	.AA.	200.4	-5.1		K5	+080710	2.1	113525	2.5	00099	16	888	38		
115 06 08 06.93 .19	+03 46 03.0	4.3	41 4 20	.AA.	204.9	-7.3		MA	+060696	.3	113295	1.2	-10111	16	892	37		
116 06 08 58.00 .26	-07 14 16.4	3.8	37 4 9	.B.	214.9	-12.2		MA	+060696	.5	+10110	1.4	-10112	9	895	50		
117 06 10 18.74 .26	+06 01 49.0	4.3	41 4 37	.AA.	203.2	-5.7		MA	+060696	.3	11352	1.5	+10110	1.4	896	50		
118 06 10 25.62 .17	-07 17 07.4	3.8	34 7 8	.AA.	215.1	-11.9		MA	+060696	.3	113297	1.2	-10112	9	897	50		
119 06 12 26.91 .21	-06 15 28.6	2.9	124 16 62	.AA.	216.4	-11.0		K0	+135012	.3	-10113	1.1	905	48	ED-07 1469	42653		
120 06 18 58.27 .39	+08 32 20.7	3.6	47 5 97	.AB	201.5	-3.5		MA	+060696	.3	113297	1.2	-10112	9	906	48		
121 06 17 29.18 .60	-02 55 14.5	3.8	138 22 23	.AA.	212.0	-8.2		MA	+060696	.3	113297	1.2	-10112	9	907	48		
122 06 18 17.94 .16	+05 45 50.0	3.2	35 2 10	.AA.	204.3	-4.2		A	+050763	.8	113318	3.2	00100	2	913	165		
123 06 18 26.16 .24	+02 35 36.6	1.6	63 5 5	.A.	207.2	-5.6		MB	+020702	2.6	113750	2.9	00101	6	919	186		
124 06 19 15.50 .31	+07 22 26.0	4.2	60 6 49	.B.	203.0	-3.1		MD	+011382	4.8	113318	4.8	00103	17	923	17		
125 06 19 46.07 .17	+03 22 26.0	3.5	82 16 25	.B.	205.6	-4.9		MD	+011382	4.8	113318	4.8	00104	20	925	60		
126 06 20 12.33 .30	-02 10 06.9	1.0	118 6 6	.AA.	211.6	-7.4		MD	+011382	4.8	113318	4.8	00104	20	925	60		
127 06 21 06.03 .43	+08 31 30.3	2.7	15 5 7	.A.	202.2	-2.2		MD	+011382	4.8	113318	4.8	00104	20	925	60		
128 06 21 24.52 .44	+08 30 49.3	3.9	16 4 22	.B.	202.2	-2.2		MD	+011382	4.8	113318	4.8	00104	20	925	60		
129 06 22 08.70 .17	+03 47 31.2	5.9	31 2 9.	.AA.	202.3	-2.2		MD	+011382	4.8	113318	4.8	00104	20	925	60		
130 06 23 57.66 .39	+08 39 55.8	3.5	13 2 43	.AA.	202.4	-1.5		MA	+030794	1.4	113638	2.1	00108	17	BD+03 1233	44945		
131 06 26 06.00 .52	+06 47 44.5	4.4	16 1 7	.AA.	206.5	-4.2		MA	+080762	1.2	113879	1.2			BD+06 1333	45255		
132 06 26 10.60 .52	+06 47 44.5	4.4	16 1 7	.AA.	204.3	-1.5		MA	+060751	3.2	113534	2.8			BD+06 1255	45639		
133 06 26 37.96 .15	+02 40 48.0	4.6	47 3 11	.AA.	205.0	-3.7		MA	+020729	3.2	113534	2.8	00113	17	BD+02 1253	45724		
134 06 26 50.85 .29	-08 03 58.6	4.1	60 5 21	.AA.	217.7	-8.6		MA	+133525	3.5	-10124	30			ED-08 1448	45804		
135 06 26 51.26 .50	+05 03 19.1	4.5	11 3 32	.CP6	202.6	-8		MA	+070801	1.6	113956	1.9			ED+08 1367	45829		
136 06 27 19.17 .36	+07 57 19.8	3.9	13 1 21	.AA.	203.4	-1.1		MA	+070801	1.6	113956	1.9			ED+08 1367	45829		
137 06 27 41.27 .40	+08 05 44.5	4.8	22 3 42	.AA.	203.4	-1.0		MA	+070801	1.6	113956	1.9			ED+08 1367	45829		
138 06 27 41.63 .51	+09 03 35.6	4.1	9 1 27	.B.	205.5	-5		MA	+070826	1.6	113969	1.4			ED+09 1262	458562		
139 06 31 39.74 .35	+09 07 31.0	4.1	10 1 67	.AB	202.9	-5		MA	+090730	1.4	114079	1.4			ED+09 1264	46555		
140 06 31 56.06 .23	+05 00 28.0	4.5	70 10 19	.AAC	205.6	-1.5		MB	+050804	1.4	114079	1.4			ED+05 1306	46612		
141 06 32 40.31 .26	-01 28 06.9	4.6	75 14 9	.AB	212.4	-4.3		MB	-010768	1.7	133537	1.4	00117	18	964	109		
142 06 33 18.88 .22	-05 20 07.4	2.4	246 37 60	.AA.	216.0	-5.9		MA	-10131	61	968	22			ED+01 1263	46755		
143 06 34 59.13 .27	-01 21 02.8	3.7	149 38 38	.AA.	212.6	-3.7		MA	-01119	18	977	48						
144 06 35 13.29 .23	+07 46 23.5	5.4	9 0 7	.AA.	205.5	-5		MA	+070826	1.8	114161	2.3			ED+07 1379	260958		
145 06 36 11.06 .23	+05 14 11.0	3.4	45 4 21	.AA.	206.9	-7.4		MA	+114196	3.3	+10130	13	981	353	ED+05 1345	47452		
146 06 36 26.06 .41	+08 46 53.4	5.2	6 1 21	.AA.	206.9	-7.4		MA	+090771	1.2	114387	3.3			BD+09 1382	48976		
147 06 37 32.28 .32	-06 17 57.1	4.1	37 9 9	.B.	217.3	-5.4		MA	+010753	1.3	114350	1.5	00126	13	1010	158		
148 06 39 34.84 .41	+07 26 48.1	5.0	21 3 9	.AA.	205.3	-1.3		MA	+070839	1.8	114299	1.0	-10135	9				
149 06 42 03.16 .15	+03 22 06.9	3.5	31 4 10	.B.	209.2	-2.7		MA	+010753	1.3	114350	1.5	00126	13	1010	157		
150 06 42 21.28 .39	+09 05 28.3	3.2	34 10 122	.B.	204.2	-2.7		MA	+010753	1.3	114350	1.5	00126	13	1010	157		
151 06 42 50.54 .36	+08 05 30.6	4.6	27 3 27	.AA.	205.1	-2.4		MA	+010753	1.3	114350	1.5	00126	13	1010	157		
152 06 43 48.50 .42	+09 15 30.6	4.6	10 2 31	.B.	204.2	-2.4		MA	+010753	1.3	114350	1.5	00126	13	1010	158		
153 06 44 22.75 .27	+08 46 51.2	3.1	23 3 24	.AA.	205.3	-2.7		MA	+010753	1.3	114350	1.5	00126	13	1010	158		
154 06 44 36.02 .09	+01 35 05.6	4.4	4 4 5	.B.	211.1	-2		MA	+060838	1.0	114410	1.7	+10135	9				
155 06 44 36.76 .30	+08 05 32.6	3.6	64 5 53	.AA.	205.3	-2.7		MA	+060838	1.0	114410	1.7	+10135	9				
156 06 45 15.09 .16	+02 28 07.6	4.1	66 0 6	.AA.	210.4	-3		MA	+060838	1.0	114410	1.7	+10135	9				
157 06 45 21.50 .50	+08 20 12.4	3.9	10 1 13	.B.	205.2	-3		MA	+060838	1.0	114410	1.7	+10135	9				
158 06 48 18.76 .15	-00 04 47.5	4.7	33 3 7	.AA.	212.9	-2.2		MA	-00876	5	00132	57			ED+00 1644			
159 06 49 18.02 .20	+04 49 31.0	2.9	31 87	.B.	205.7	-2.3		MA	+040872	3	114535	1.0	00134	57				
160 06 50 03.57 .23	+03 29 00.6	3.5	156 244	.B.	205.6	-4.1		MA	+040872	3	114535	1.0	00134	57				
161 06 50 13.43 .34	+08 43 35.7	5.2	8 4 7	.B.	205.4	-2.7		MA	+030855	7	114558	1.3	+10135	9				
162 06 52 55.60 .24	+06 26 35.9	3.8	131 36 122	.B.	207.7	-3.6		MA	+030855	7	114558	1.3	+10135	9				
163 06 53 29.73 .44	+08 48 41.4	5.9	1 7	.AA.	205.7	-2.7		MA	+080369	1.6	114642	1.9			ED+08 1566	51074		
164 06 54 35.59 .29	+03 38 39.8	2.3	17 4	.B.	205.9	-5.2		MA	+080369	1.6	114642	1.9			ED+08 1566	51074		
165 06 55 07.68 .19	+03 22 14.8	5.0	39 4 14	.A9.	210.7	-2.9		MA	+0140	12	1043	42						

FIC	R.A.1950	DEC.1950	SDDC	FL	SDFL	OBS	1234	B	TYPE	AGK3	EAG	SAO	ESA	TMSS	ETH	AEGL	EAF	...DM...	HD
166	06 55 40.70	-23	+06 14 07.4	4.5	107	17	.A..	.A..	208.2	4.3	RB	+060844		114704	1.1 +101446	32 1045 110	BD+06 1462	51620	
167	06 55 31.70	-31	-03 10 49.8	5.7	57	10	.A..	.A..	216.9	-6	K5		136049	1.1 .001141	25 1053	68	BD-03 1685	52432	
168	06 55 29.01	-22	-05 38 55.6	3.6	115	13	.A..	.A..	219.2	-3	K5		13076	2.1 -10145	44	BD-05 1826	52666		
169	06 59 37.12	-22	-03 40 54.8	3.9	42	5	.A..	.A..	217.5	-7	K0		134082	2.1 .00143	29	BD-03 1644	52890		
170	07 02 56.64	-34	+09 15 46.0	3.0	38	5	.A..	.A..	206.3	7	K0		114699	.7 +10151	43	BD+09 1510	53510		
171	07 04 16.63	-34	+08 57 19.8	3.2	50	6	.A..	.A..	206.7	7.5	K0		+10153	33 1067 156					
172	07 04 31.08	-22	-04 42 59.9	2.7	163	32	.A..	.A..	998	1.4	K0			-10149	12 1070	46			
173	07 05 58.41	-24	+04 15 24.4	4.6	36	5	.A..	.A..	211.2	5.7	MA	+060918	.5 114976	1.5 .00146	13 1077	285	BD+04 1559		
174	07 07 44.78	-20	-04 09 20.5	3.4	29	3	.A..	.A..	218.8	2.2	K0		134282	3.5 .00147	16	E7-04 1540	54810		
175	07 10 21.36	-15	+02 42 41.0	4.2	17	1	.A..	.A..	213.0	6.0	K0			.00148	26				
176	07 11 15.79	-24	-03 51 46.8	2.1	46	0	.A..	.A..	219.0	3.1	HC		134375	.3 .00149	12	BD-03 1800	55553		
177	07 11 41.37	-51	-03 48 53.6	5.0	35	9	.C..	.C..	219.0	3.3	K5		134391	2.2 .00150	54	BD-03 1804	55775		
178	07 11 42.81	-21	+03 11 52.6	4.7	27	2	.A..	.A..	212.8	6.5	GS		115119	2.0 .00151	43	ED+03 1609	55751		
179	07 12 09.52	-14	+04 16 21.1	5.7	14	2	.A..	.A..	211.9	7.1	MA	+060938	.5 115133	2.2					
180	07 12 31.43	-43	+08 28 19.5	3.4	28	4	.AA..	.AA..	208.1	9.1	K2	+080942	1.8 115143	1.4 +10157	9		55528		
181	07 12 56.61	-23	+08 03 56.8	3.3	133	19	.A..	.A..	203.5	9.0	HB	+080943	1.4 115159	1.4 +10160	20		55521		
182	07 12 58.24	-18	+06 00 34.9	3.7	36	3	.A..	.A..	210.4	8.1	MA	+060900	2.8 115160	2.8 +10159	18		56033		
183	07 12 59.47	-41	+05 08 56.0	4.6	27	3	.A..	.A..	211.2	7.7	MA	+060901	2.8 115160	2.8 +10159	18				
184	07 14 56.66	-25	+08 53 12.8	5.6	8	1	.A..	.A..	208.0	9.8	K5	+080951	6.8 115213	5.7 +10158	66	BD+09 1605	56539		
185	07 16 25.03	-14	+03 37 27.4	2.1	67	6	.AA..	.AA..	212.9	7.7	HB	+030973	1.7 115249	1.0 00154	14	ED+03 1639	56889		
186	07 19 21.26	-23	+03 12 10.8	4.4	11	2	.A..	.A..	213.6	8.2	K5	+030992	2.2 115330	1.7 +10162	7	ED+03 1658	57591		
187	07 20 30.38	-35	+08 59 45.2	3.5	19	2	.A..	.A..	208.6	11.3				+10162	7				
188	07 22 56.81	-36	+09 22 33.6	4.3	24	6	.D..	.D..	208.4	11.8	GS		115423	.7 +10163	76	BD+09 1643	58367		
189	07 24 21.26	-35	+09 08 43.0	4.6	11	2	.B..	.B..	208.8	12.0	K0	+090895	.7 .115455				58714		
190	07 24 34.24	-27	+03 19 50.4	4.7	14	2	.A..	.A..	213.8	9.6	K5	+031007	3.2 115462	3.2			58783		
191	07 25 26.18	-25	+09 04 40.8	2.8	128	18	.A..	.A..	209.0	12.2	KD	+090898	1.0 115478	1.1 +10164	10 1127	41	ED+09 1660	58972	
192	07 30 00.19	-21	+01 05 33.2	3.0	185	238	.AAB	.AAB	210.1	12.9	MA	+060963	3.0 115661	3.3 +10167	10 1138	46	BD+09 1680	59950	
193	07 32 22.31	-19	+06 18 15.4	2.7	29	2	.A..	.A..	212.3	12.5	MA	+060963	3.0 115661	3.3 +10169	23	ED+06 1720	60501		
194	07 33 51.57	-28	-08 11 56.7	2.3	33	3	.A..	.A..	215.5	6.0	K2	+080983	1.3 11583	1.3 -10170	64	BD+07 2065	60953		
195	07 36 39.79	-21	+05 20 47.0	2.3	33	3	.A..	.A..	213.7	13.0	FS		115756	3.2 +10170	35 1161 135	BD+05 1739	61421		
196	07 38 37.10	-27	+08 29 51.0	3.5	26	9	.A..	.A..	211.0	14.9			+0171	17					
197	07 39 18.52	-19	+03 32.4	1.4	50	4	.A..	.A..	222.5	9.2									
198	07 42 54.43	-13	+05 19 48.7	4.4	28	1	.A..	.A..	214.4	14.4									
199	07 43 35.04	-17	-06 36 36.7	3.4	30	2	.A..	.A..	225.3	8.9	K2		135079	4.3 +10175	31				
200	07 49 29.90	-20	+03 26.2	2.4	128	18	.A..	.A..	217.0	15.0	MA	+031073	1.0 116054	1.2 .00163	28 1200	29	BD+03 1624	64052	
201	07 51 01.48	-51	+09 07 55.6	4.4	5	0	.A..	.A..	211.8	17.9	K2	+050981	3.4 116080	2.5 +10167	80	BD+09 1805	64353		
202	07 53 51.26	-24	+06 32 40.7	2.0	126	17	.A..	.A..	214.6	17.4	K5	+061020	2.7 116143	2.1 +10168	42	BD+06 1833	64937		
203	07 58 40.82	-20	-01 15 10.4	2.8	113	25	.A..	.A..	222.4	14.6	KD	-011162	1.6 115360	1.4 00166	13 1216	85	BD+00 1882	65553	
204	07 59 39.62	-05	+02 28 27.1	1.8	87	18	.C..	.C..	219.1	16.8	K0	+021046	1.2 116260	1.6 00167	33 1218	126	BD+02 1854	66141	
205	08 03 02.71	-26	+05 46 26.0	3.5	16	1	.A..	.A..	215.5	19.1	HS	+051157	1.1 116668	1.1 +10187	6				
206	08 03 29.25	-20	+05 43 34.6	3.7	21	2	.A..	.A..	216.5	19.1									
207	08 09 11.46	-22	+05 56.1	2.7	15	1	.A..	.A..	217.0	20.5	MA	+051176	1.4 116466	1.2 +10183	20		66202		
208	08 09 53.49	-24	+07 07 36.1	3.9	19	1	.A..	.A..	215.9	21.2	M2	+071172	2.6 116475	1.7 +10183	20				
209	08 13 48.14	-25	+09 26.1	2.7	250	37	.BAA	.BAA	214.3	23.0			+10186	37					
210	08 14 58.05	-20	+09 19 14.1	3.8	2	17	.A..	.A..	214.1	23.3	K5	+091055	.7						
211	08 16 47.58	-20	-07 24 00.7	2.9	25	4	.AA..	.AA..	230.2	15.7	K5		135772	2.7 -10190	10				
212	08 18 54.69	-16	+05 07 04.6	2.7	171	26	.AA..	.AA..	219.0	22.3	HS	+051219	.7 116668	1.1 +10187	6				
213	08 20 27.33	-21	-07 22 54.8	3.6	98	28	.A..	.A..	230.7	16.4	MA	+051230	1.2 116668	1.2 +10187	6		66258		
214	08 20 49.67	-27	+06 58 26.7	3.5	9	1	.A..	.A..	217.4	23.6	K5	+061081	3.3 116705	3.5 -10193	6				
215	08 22 01.94	-17	+08 21 27.3	2.0	187	25	.A..	.A..	216.3	16.3	HS		135876	2.1 -10194	28 1250	133	ED+07 2343	70938	
216	08 23 35.79	-21	-04 44 11.0	2.9	117	12	.BA..	.BA..	228.7	18.5									
217	08 27 13.15	-21	-06 09 01.9	2.7	233	34	.AC..	.AC..	230.5	18.5	MC	+031169	1.4 116983	1.4 00176	2	BD-05 2550	71897		
218	08 36 08.51	-14	+03 31 06.2	6.2	54	5	.A..	.A..	222.7	25.3	K0	+031169	1.4 116983	1.4 00176	25 1276	66	ED+03 2026	73471	
219	08 41 12.78	-18	-07 03 06.2	2.8	238	28	.AA..	.AA..	233.7	21.6	HS	+011107	1.3 117103	1.3 -10204	34	ED+02 2708	74395		
220	08 43 45.88	-19	+01 43 56.5	1.8	235	28	.AA..	.AA..	225.4	26.1									

EIC	R.A.1950	SDDC	DEC.1950	FL	SDFL	OBS	1234	B	TYPE	AGK3	EAG	SAO	ESA	THSS	ETH	AEGL	EAFL	...DM...	HD
221	08 44 07.24	.22	+06 36 09.7	4.2	-06 22 22.4	.8	71	4	A.9	220.7	28.5	L	11712	1.0	+10193	27 1269	33	BD-06 2727	75140
222	08 45 36.62	.27	+09 27 29.5	2.4	-06 08 12.8	5.5	15	2	9B.	223.3	22.5	K0	136387	1.1	+09 2067	75432			
223	08 47 37.98	.44	+08 27 29.5	2.4	-06 08 12.8	3.0	129	20	A.	218.2	30.6	K5	091140	.8	117160	.5	BD+07 2068	76254	
224	08 52 44.83	.17	+06 08 12.8	3.0	+08 24 40.3	3.3	14	3	A.9	222.3	30.2	K0	117264	.4	+10200	44			
225	09 00 35.01	.34	+07 00 47.8	3.9	-06 33 40.6	4.5	11	6	A..	221.0	33.0	K0	071288	3.2	117374	3.4	BD+07 2068	77518	
226	09 00 35.03	.40	+07 00 47.8	3.9	-06 33 40.6	4.5	13	6	A.B	222.5	32.3	K0	051351	1.3	117420	2.4	ED+05 2116	77926	
227	09 03 20.39	.32	+05 17 36.8	3.9	-05 17 36.8	3.9	35	4	A..	224.7	32.1	K0	011166	1.6	117432	2.4	+0183	78156	
228	09 04 24.98	.16	+01 39 53.6	5.2	+06 31 28.5	3.1	10	7	.89.	228.5	30.5	HA	061183	.3	117437	.8	+10202	78CS1	
229	09 04 50.49	.32	+06 31 28.5	3.1	-06 08 36.9	1.7	29	5	A..	237.5	28.3	K0	136725	.6	-101213	56	BD-05 2762	79910	
230	09 14 12.55	.18	-06 08 36.9	1.7	-05 22 37.6	3.3	102	18	9	A7B	231.9	32.7	HB	001294	1.7	117605	1.4	00186	80557
231	09 18 02.61	.21	+00 23 37.6	3.3	+07 03 38.8	3.1	23	6	A..	234.4	37.2	HA	071327	1.1	117646	1.1	+10205	81028	
232	09 20 49.77	.30	+07 05 44.0	4.5	+04 56 08.2	4.2	55	4	A..	237.8	30.7	K5	135832	4.8	00187	33	ED-04 2215	81420	
233	09 22 53.78	.10	-04 56 08.2	4.2	-07 30 07.9	3.8	28	6	F.A	240.7	29.7	MA	135880	1.1	-10218	3	ED-07 2613	81684	
234	09 25 44.90	.21	-07 30 07.9	3.8	-06 31 28.5	3.1	20	9.C	223.7	28.9	GO	091210	1.1	117717	.8	ED-09 2188	81689		
235	09 25 46.92	.45	+09 16 30.7	3.5	-06 31 28.5	3.1	20	9.C	224.6	38.5	K0	081275	.8	117718	1.2	ED-08 2226	81673		
236	09 25 49.44	.17	+08 24 28.1	3.0	13	2	A..	224.6	38.5	K0	117789	1.1	+10208	19	ED-08 2243	81CS19			
237	09 32 01.77	.33	+08 24 28.1	3.0	-05 41 29.0	4.2	19	13	A..	225.6	39.8	MA	081C89	1.6	-10221	51	ED-05 2840	82670	
238	09 32 02.97	.23	-05 41 29.0	4.2	-07 03 38.8	3.1	21	1	AB	240.2	32.1	K0	135964	1.6	-10219	17	ED+7 2160	83340	
239	09 34 34.15	.21	+07 03 38.8	3.1	+04 56 08.2	4.2	55	4	A..	227.5	39.7	K0	071350	3.1	117807	2.1	00189	83445	
240	09 35 50.32	.43	+04 56 08.2	4.2	-06 31 28.5	3.1	60	12	AB8	230.2	38.9	K0	+041332	1.6	117832	2.1	ED-05 2207	83445	
241	09 37 18.09	.15	-00 56 55.4	2.7	136	22	14	A6B	236.5	36.0	K0	-001411	5.5	137035	1.6	BD-00 2231	83618		
242	09 43 31.65	.38	+06 56 24.0	5.2	55	8	19	.9BC	229.1	41.6	HA	+061247	1.4	117898	1.6	+10213	81379		
243	09 43 48.21	.40	+08 41 17.8	5.0	7	1	A..	227.2	42.5	MA	+061262	.7	117975	1.1	+10218	5 1387 69			
244	09 43 50.37	.32	+06 11 41.6	4.9	80	15	24	A..	231.3	42.8	MA	+051460	1.0	117980	1.7	+10220	16		
245	09 51 29.65	.13	+05 10 56.8	2.9	19	2	9	A..	232.6	42.3	K5	051466	1.0	117980	1.0	+10221	6		
246	09 52 16.58	.34	+05 26 08.0	3.1	+06 25 08.0	3.5	21	21	A..	232.6	42.3	K5	051466	1.0	117980	1.0	+10221	6	
247	09 53 46.75	.35	+09 20 18.0	3.5	-06 31 28.5	3.1	24	34	AA	228.3	44.9	K0	+091254	3.3	116801	1.0	+10222	14	
248	09 55 28.75	.37	+08 33 10.8	3.8	19	1	28	ASA	229.3	45.0	K0	+051330	1.1	118023	1.0	+10222	14		
249	09 56 11.99	.26	+05 02 51.5	4.6	25	3	10	A..C	231.6	43.2	HA	+051475	.3	118023	1.3	+10223	14		
250	09 57 34.12	.24	+08 17 03.8	4.6	170	23	93	AAA	230.0	45.3	HA	118044	.7	+10224	14	4100	34		
251	10 05 15.98	.33	-07 23 09.9	5.2	29	1	28	.BA	246.2	37.3	HA	137364	3.2	-10230	1	ED-06 3078	87055		
252	10 06 37.70	.15	+06 25 00.4	2.6	11	1	9	.9B	234.0	46.2	K0	+061285	1.7	116135	1.5	ED-06 2205	85048		
253	10 06 52.24	.23	+09 50 18.9	2.6	26	3	92	.AA	229.8	48.0	HA	+091260	.3	118138	.5	+10227	5		
254	10 19 35.33	.35	+09 13 03.4	3.7	22	2	60	.A9	233.1	50.4	K5	+091301	1.1	118260	2.2	+10229	15		
255	10 20 23.61	.22	+06 41 47.7	4.1	11	1	12	.9AA	235.4	49.2	K0	+061311	2.2	118269	2.9	ED-07 2289	86962		
256	10 22 37.03	.33	+09 02 20.4	3.5	66	17	71	.A6B	233.9	50.9	MA	+091307	.7	118286	1.0	+10230	42		
257	10 23 13.84	.28	-06 48 19.8	2.8	-07 15 36.2	3.6	55	3	A..	251.7	40.9	K5	131557	3.3	-10239	37	ED-06 3146	90362	
258	10 28 28.21	.40	-07 22 48.7	4.2	21	3	22	.A8	232.2	40.6	K5	137614	1.1	-10241	61	ED-06 3173	91106		
259	10 28 28.26	.41	-07 22 48.7	4.2	21	3	AA	233.5	41.4	K5	137614	1.1	-10241	61	ED-06 3173	91106			
260	10 28 49.94	.44	+09 33 31.6	3.3	10	2	66	.OB	238.5	51.8	K0	+071444	1.0	118376	.8	+10232	32		
261	10 32 11.23	.21	+07 12 42.4	4.2	20	2	34	.9AB	238.5	51.8	K0	+081398	1.0	118431	1.0	ED-09 2358	92576		
262	10 38 46.19	.40	+08 49 25.6	3.3	13	61	61	.A9	237.9	54.1	MA	+051556	1.4	118449	1.8	ED-05 2354			
263	10 40 45.09	.22	+05 00 39.2	4.2	17	9	.9B	263.5	52.2	K0	+051556	1.4	118449	1.8	ED-05 2354				
264	10 42 32.40	.18	-06 33 40.6	4.5	29	6	17	.ACA	256.3	49.3	HA	137800	3.7	-10245	47 1436 111				
265	10 46 07.19	.25	-01 41 41.2	6.6	43	14	5	.B9	250.6	48.5	HA	-011537	3.6	137800	3.7	+0195	24		
266	10 46 09.55	.34	+08 55 48.0	2.7	50	6	68	.9A	239.6	55.6	M7	+081422	1.0	118576	2.1	+10235	2369		
267	10 53 25.53	.22	+06 27 06.1	3.5	502	109	59	.9B	245.1	55.5	M5	+061372	1.4	118576	2.1	+10235	2369		
268	10 57 58.68	.22	+03 53 11.4	4.4	37	5	17	.9A	249.7	54.6	M6	+081449	1.4	118610	1.0	+0195	2407		
269	10 59 16.48	.16	-02 12 56.0	2.0	133	19	22	.AA	256.9	50.3	MA	-020634	1.1	137847	.8	00200	36 1452 102		
270	10 59 40.60	.23	+04 28 05.8	5.8	11	1	10	.B8	249.5	55.3	M5	+041469	1.1	137847	1.1	ED-01 2471	95578		
271	11 01 05.37	.09	-02 56 06.1	1.8	99	6	5	.A	258.1	50.1	HA	137668	1.7	00201	37 1455 56				
272	11 01 43.75	.22	+05 29 40.2	4.4	14	2	16	.B8	248.8	56.4	MA	+051588	1.1844	.3	ED-06 2397	95560			
273	11 02 25.74	.13	+07 01 28.6	3.4	10	2	7	.B8	246.1	57.9	F0	246.1	1.7	ED-01 2519	96077				
274	11 03 27.91	.09	+01 26 49.0	3.1	26	4	6	.A..	254.2	53.8	MA	+011353	2.5	118655	1.9	00202	33		
275	11 04 20.47	.20	+02 13 36.4	3.7	19	5	6	.A..	213.6	54.5	G5	+021459	1.0	118668	.3	ED-02 2387	96436		

EIC	R.A.J1950	S.DRA	DEC.1950	SDDC	FL	SDFL	OBS	TYPE	AGK3	EAG	SAD	ESA	TMSS	ETH	AFGEL	EAF	DM...	HD
276	11 07 56.86	.33	+08 09 47.1	4.2	13	1	40	.9A.	247.1	59.3	K5	+081451	118702	1.0	+00	+2465	97053	
277	11 11 25.96	.36	+08 20 01.3	3.8	15	2	56	.9A9	248.0	60.1	K0	+081462	118735	.3	+00	+2476	97055	
278	11 16 43.05	.16	+02 17 07.4	4.7	75	7	6	.AA	257.0	56.2	K5	+021476	2.5	118766	2.9	+00203	7	
279	11 17 30.98	.24	+05 55 27.1	4.8	17	2	28	.9B8	253.5	59.4	HB	+081615	1.0	118795	1.1	+00		
280	11 18 54.69	.17	+04 12 41.0	4.7	12	1	7	.A.	256.2	58.4	K5	+041505	1.0	118807	1.0	+00	2452	
281	11 23 42.59	.37	+08 56 03.8	3.7	13	2	70	.8B8	251.5	62.7	K0	+081486	.5	118859	1.0	+00	2494	
282	11 25 21.88	.17	+03 07 53.0	4.0	23	3	13	.AB	259.9	58.6	K0	+081498	.3	118875	.3	+00205	0	
283	11 27 45.52	.18	-02 43 40.4	4.4	105	18	21	.8B	266.4	54.1	K2	-020668	.3	118838	1.1	+00	2504	
284	11 28 55.41	.32	+09 01 32.8	3.2	20	2	72	.9AB	253.4	63.6	HS	+081413	.7	118903	1.1	+00204	5	
285	11 30 14.61	.24	-07 33 04.6	2.8	20	3	13	.9B	271.6	50.2	K0	+081413	6	118923	2.5	+00205	33	
286	11 31 02.06	.15	+02 46 30.7	4.9	27	2	9	.9B	262.5	59.1	K5	+081501	118923	.0	+00208	12	+00	2519
287	11 34 19.60	.31	+09 48 20.1	2.4	31	3	170	.A7	254.4	65.1	K0	+081430	2.6	+00210	34	+00	2312	
288	11 35 13.84	.11	+04 35 59.2	3.9	16	1	11	.9B	262.1	61.2	HS	+081527	1.9	118856	1.5	+00	2517	
289	11 35 36.91	.36	+09 09 37.4	4.2	9	1	48	.9B9	256.0	66.8	K0	+081454	1.1	118895	1.4	+00	2523	
290	11 35 52.80	.23	+08 24 38.5	3.0	325	43	146	.9B8	257.3	64.3	HS	+081499	1.0	118965	1.0	+00	2523	
291	11 43 17.20	.25	+06 48 28.4	3.7	245	39	92	.8B9	262.9	64.2	MA	+081460	.8	119035	1.0	+00245	49	
292	11 43 31.82	.33	+07 27 05.7	5.4	22	3	52	.9A	262.1	64.7	MA	+071572	1.2	119035	1.6	+00246	23	
293	11 44 20.20	.09	+01 52 53.7	3.9	12	2	6	.8C8	269.0	60.2	HS	+081442	1.7	+00247	5	+00	2479	
294	11 48 06.57	.25	+02 02 39.4	3.2	30	6	10	.9B	270.5	60.8	F8	+0802	2489	1.0	+00270		+00	2489
295	11 48 59.85	.26	-07 09 15.4	4.7	11	1	41	.8A	265.1	65.3	K5	+071577	1.1	119076	.8	+00212	5	
296	11 50 11.59	.25	-07 19 05.5	3.3	119	19	64	.9AA	278.6	52.5	HC	+081457	.7	+00259	7	+00	2489	
297	11 51 30.57	.15	-05 09 23.4	2.3	6	1	6	.A.	268.6	63.9	K5	+081670	1.4	119101	1.9	+00	2555	
298	11 52 28.99	.32	+08 43 19.2	4.1	12	2	69	.9B8	264.8	67.0	K0	+081523	119111	1.0	+00	2560	1.0	
299	11 55 10.96	.42	+07 15 06.8	6.2	5	14	.AA	268.2	66.2	K0	+071591	5.6	119134	5.6	+00	2569		
300	11 55 40.12	.33	+03 45 38.6	6.3	37	7	18	.9C	272.4	63.2	HA	+081567	1.9	119139	1.9	+00213	34	
301	11 56 49.94	.27	+02 06 15.8	3.6	11	1	8	.AA	274.5	61.8	K0	+081537	4.0	119150	4.0	+00	2499	
302	12 00 01.27	.31	+08 22 52.4	4.1	21	3	73	.9CB9	279.4	67.7	MA	+081536	.7	119180	.3	+00248	40	
303	12 07 17.66	.25	-07 26 18.7	3.5	20	6	34	.A.	282.5	53.3	K5	+081551	1.4	119215	1.9	+00	2562	
304	12 01 44.92	.28	+05 12 36.7	4.9	18	2	16	.9B	274.0	65.1	HA	+081685	1.1	119200	.8	+00261	19	
305	12 02 02.08	.13	+02 53 3.1	3.7	22	2	4	.AA	276.4	67.4	MA	+081543	.3	119205	2.4	+00214	15	
306	12 02 39.09	.36	+09 00 38.1	3.1	48	9	120	.9AB9	270.1	68.6	HS	+081567	1.6	119213	1.8	+00	2553	
307	12 06 40.87	.25	-06 29 15.7	3.8	215	33	66	.9AB9	283.8	56.5	HB	+081595	1.2	-10263	8	+00	2499	
308	12 07 42.76	.44	+08 35 27.2	3.4	4	0	5	.AC	273.5	65.6	HA	+081546	2.1	119247	2.9	+00	2562	
309	12 17 47.76	.22	+03 35 27.2	6.1	34	7	13	.9B	284.3	65.1	K0	+081610	3.0	119341	3.3	+00215	54	
310	12 19 41.68	.25	+05 07 55.9	4.5	51	6	16	.9B	284.3	66.7	HB	+081722	1.1	119357	1.5	+00	2562	
311	12 21 38.25	.33	+06 14 56.7	6.2	28	6	27	.9B	284.7	67.9	H3	+081585	2.2	119372	2.4	+00217	10	
312	12 22 40.58	.19	+01 02 45.6	4.9	189	47	43	.87B0	285.4	62.9	K0	+081569	1.1	119357	1.1	+00217	90	
313	12 25 09.26	.45	+08 53 31.2	3.6	6	1	59	.7A	285.0	66.7	HC	+081621	1.3	119433	1.5	+00	2628	
314	12 27 47.88	.18	+04 41 32.6	4.2	472	59	73	.9AA	289.5	66.7	HB	+081645	.7	119463	.7	+00220	33	
315	12 28 49.74	.30	+07 52 46.0	3.6	28	6	27	.9AB	288.3	69.9	K5	+081645	.7	119463	.7	+00220	10	
316	12 30 35.58	.31	+02 07 44.7	3.2	117	19	44	.9AA	289.8	69.7	HC	+081649	2.5	119580	2.9	+00	2628	
317	12 35 49.00	.19	+02 07 44.7	3.2	32	9	51	.AC	295.3	64.5	MA	+081555	.5	119503	.8	+00221	19	
318	12 35 57.45	.34	-07 15 47.1	4.6	32	9	51	.AC	293.7	69.6	HD	+081658	.1	119509	1.0	+00256	31	
319	12 36 39.21	.28	-07 43 15.2	4.6	46	5	20	.A.	297.7	54.8	K0	+081592	4.3	-10269	41	+00	2621	
320	12 39 17.18	.26	+06 08 30.8	4.9	7	1	6	.AA	296.4	66.6	K5	+081553	1.4	119537	1.1	+00	2614	
321	12 39 43.12	.36	+04 33 59.0	6.3	6	0	6	.CA	297.1	67.1	K2	+081613	2.9	119542	3.9	+00	2669	
322	12 43 31.02	.34	+07 43 03.0	3.7	5	0	9	.A..	299.0	70.3	K0	+081549	2.5	119580	2.9	+00	2668	
323	12 43 50.49	.29	+09 48 54.3	2.4	15	2	125	.A..	298.8	72.4	K0	+081551	2.1	119586	2.6	+00	2669	
324	12 44 30.33	.46	+09 20 12.4	3.5	8	1	123	.9C	299.4	71.9	K0	+081551	2.1	119586	2.6	+00	2669	
325	12 44 45.50	.21	+04 25 02.6	3.1	158	37	78	.5B9	300.3	67.0	K0	+081551	1.0	119586	1.0	+00	2669	
326	12 45 18.45	.29	+03 50 44.8	4.4	39	10	12	.AB	300.7	66.4	MA	+081648	2.1	119596	1.7	+00225	16	
327	12 46 14.01	.54	+07 39 13.7	4.7	6	1	6	.AA	301.0	70.2	K2	+081609	2.6	119633	2.5	+00	2703	
328	12 49 03.66	.19	+03 19 44.0	1.9	16	1	6	.AA	303.0	65.9	K0	+081653	1.1	119674	1.4	+00226	14	
329	12 53 00.00	.19	+03 40 05.8	3.1	851	146	68	.9BA	305.5	66.2	MA	+081609	1.1	119674	1.4	+00226	14	
330	12 56 16.99	.35	+08 26 46.2	4.1	19	3	101	.9C	308.5	71.0	MA	+081609	1.1	119690	1.4	+00260	14	

EIC	R.A. 1950	DEC 1950	S0DC	EL SDFL	OBS	B TYPE	AGK3	EAG	SAO	ESA	TMSS	ETH	AFGL	EAF	DM	HD
331	13 00 05.61	.24 +05 27 13.6	3.4 597	76 89	98AA	310.4	67.9	NAP	+051798	1.7	119734	1.1	1544	164	BD+05 2708	113285
332	13 00 55.22	.24 +05 10 35.0	5.3 27	3 16	98.	310.8	67.6	NAP	+051800	.7	119743	1.4	+10263	34	BD+05 2709	113410
333	13 01 24.1'	.27 +07 20 08.8	3.9 47	8	51 A9.	311.9	69.7	NB	+07104	2.6	119765	1.6	+10254	36	1597	59
334	13 10 11.49	.22 +01 29 35.1	2.7 108	18	21 .8A.	313.9	60.7	NB	-01175	1.2	119219	1.9	00229	37	1604	162
335	13 10 52.60	.47 +09 03 38.8	4.9 6	1	43 .8A..	319.8	70.9	NB	+091515	1.1	119821	.7			BD+09 2730	
336	13 11 24.36	.18 +01 43 13.4	4.3 14	2	89C	315.8	63.8	KC	+011535	2.1	119821	1.7	+0230	5	1606	28
337	13 11 29.66	.16 -02 32 34.0	2.8 1156	129	43 A.AA	314.1	59.6	KC	-020191	1.1	119256	.7			ED+02 2646	114960
338	13 12 30.71	.18 +04 46 51.9	3.5 56	6	13 .9B.	316.0	66.7	NB	+041620	1.2	119839	1.6	00231	25	BD+05 2728	115104
339	13 13 16.07	.41 +08 13 01.2	2.7 7	1	13 9AB..	320.8	70.0	KW	+081631	1.6	119837	2.3			BD+08 2690	115245
340	13 13 52.59	.38 +05 46 05.6	4.8 68	7	42 .9AB..	320.1	68.5	NB	+061603	1.3	119843	.8	+10266	25	1610	248
341	13 14 16.22	.41 +09 41 08.8	3.5 11	1	44 .A..	322.8	71.3	GO	+091600	1.6	119567	1.6			BD+10 2531	115363
342	13 15 04.58	.20 +05 43 56.6	3.6 168	28	103 BAB..	320.1	67.5	GO	+051815	.7	119355	.7	+10270	38	1611	45
343	13 17 01.68	.53 +08 54 25.5	5.1 1	20 AC..	324.0	70.4	KZ	+081637	.7	119878	1.2			ED+08 2742	115631	
344	13 17 26.63	.41 +03 44 57.1	4.0 5	1	10 CA..	324.1	70.2	KO	+031639	1.1	119682	1.2			ED+09 2743	115635
345	13 19 28.99	.34 +03 01 05.8	3.7 31	6	13 9BB..	321.0	64.6	NA	+031704	1.1	119952	2.0			ED+03 2762	116207
346	13 26 41.32	.31 +04 07 44.4	3.8 30	1	9 AAB..	325.8	65.1	KZ	+041710	3.0	119951	2.0			ED+04 2751	117265
347	13 27 26.68	.45 +06 16 14.5	2.9 5	0	8 .A..	328.1	67.0	KO	+061626	1.0	119961	2.5			ED+06 2750	117405
348	13 27 29.35	.32 +07 26 11.0	4.7 21	3	60 .9B..	329.3	66.1	KO	+071737	1.4	119962	1.4	+10272	8		
349	13 29 21.40	.22 -05 59 55.3	3.2 200	35	72 993A	320.8	55.2	HA	+139390	.8	10288	5	1631	46	ED+07 3714	117675
350	13 30 23.11	.24 -06 56 19.3	2.8 173	65	72 977	320.8	56.2	ND	+139403	5.0	-10290	1.7	1633	78	ED+06 3517	117633
351	13 32 07.89	.15 -00 20 23.2	4.8 26	1	6 .9B.	325.2	60.4	AZ	+139420	3.4	119832	1.2			ED+00 3501	116098
352	13 32 56.11	.30 -04 08 31.1	5.1 14	3	13 8 .A..	323.3	56.7	K5	+081662	1.4	120056	2.6	4173	78	ED+03 3501	118216
353	13 33 22.22	.31 +08 32 49.5	3.3 78	10	114 BB9C	334.2	66.4	HS	+021681	1.1	120056	1.4	+10273	33	ED+09 2785	118289
354	13 35 11.27	.08 +02 38 09.6	2.9 9	1	6 9.B..	329.0	62.9	KO	+031711	.7	120082	1.7	+10276	22	ED+03 2799	118578
355	13 40 32.10	.13 +03 47 22.5	3.7 19	2	11 B9..	332.9	63.4	KO	+031711	.7	120082	.7	00236	28	ED+04 2775	119425
356	13 45 38.78	.28 +03 04 08.0	5.1 16 AC..	5	16 .AC..	340.4	66.5	HS	+031679	.8					ED+08 2765	122602
357	13 47 53.80	.24 +05 44 40.2	4.3 8	1	7 .T..	335.8	64.2	KO	+051668	.3	120132	1.2			ED+06 2800	122602
358	13 49 15.79	.20 -03 25 45.1	3.2 124	23	30 7789	330.6	55.9	HB	+139504	5.0	00237	21	1653	49	ED+02 3749	130306
359	13 52 07.55	.18 +01 15 23.0	3.8 17	21	3 .A..	333.5	57.6	KO	-011725	5.8	139613	5.9	00238	8		
360	13 54 29.44	.28 +06 49 05.5	4.7 29	3	51 9AB..	343.0	64.2	HS	+061663	1.1	120191	1.7	+10275	21	ED+07 2720	121713
361	13 55 32.13	.36 +07 42 21.2	4.4 31	5	9 998B	344.7	64.8	HS	+071782	1.0	120197	1.7	+10276	22	ED+08 2794	121660
362	13 59 57.81	.64 +09 32 26.0	3.3 11	1	76 .A..	349.1	65.7	KO	+091672	1.2	120322	1.7			ED+10 2616	122387
363	14 00 05.01	.45 +08 08 14.6	5.2 2	44	79B	347.4	64.4	HS	+081703	1.9					ED+08 2808	122744
364	14 01 07.55	.39 +07 47 08.8	5.5 6	1	347.4	64.0	KO	+071790	.7	120261				ED+08 2810	122744	
365	14 05 24.95	.26 +08 19 27.8	4.6 4	1	350.0	63.7	K5	+061712	1.4	120299	1.4			ED+08 2816	123497	
366	14 06 56.74	.33 +05 11 59.2	5.9 6	0	7 .A..	346.4	61.1	K	+051802	2.5	120314	1.7			ED+08 2847	123761
367	14 07 30.81	.49 +07 42 42.9	5.6 7	1	78B..	349.8	62.8	HS	+071802	2.0	120322	1.1			ED+08 2833	
368	14 11 39.86	.51 +08 06 49.6	3.5 1	15	A ..	352.3	62.5	HS	+081722	2.5	120352	2.8			ED+08 2833	124549
369	14 12 21.57	.16 +03 34 05.8	4.5 57	10	7 .A..	346.5	59.0	HA	+031768	1.4	120354	1.6	00239	13	ED+04 2841	124561
370	14 13 22.99	.14 -05 45 58.3	3.4 20	6	7 .A..	337.7	51.1	FS	+139824	3.4	-10302	4			ED+05 3543	124550
371	14 14 41.83	.52 +09 01 23.8	4.6 5	0	37 .A..	355.7	62.3	HO	+091698	3.6					ED+09 2876	125753
372	14 16 55.87	.28 +06 40 15.2	5.5 8	1	10 .A..	353.0	60.3	K	+061706	1.8	120410	1.4			ED+07 2781	
373	14 21 50.27	.36 +08 18 38.1	3.9 13	2	74 .A..	356.3	61.6	K2	+061743	1.4	120436	2.1			ED+08 2858	126271
374	14 23 25.67	.29 +06 41 56.0	4.7 15	2	46 .A..	354.6	59.5	H2	+061712	1.3	120455	1.7				
375	14 24 45.79	.24 +04 54 05.4	3.9 107	37	67 .A..	352.7	58.0	MA	+051930	1.4	120460	1.4				
376	14 25 58.87	.28 +05 52 16.7	4.8 20	2	40 .A..	354.4	58.5	MA	+051930	1.4	120460	1.4				
377	14 26 02.92	.24 -06 40 38.2	3.0 52	5	7 .A..	352.0	57.0	K5	+031791	2.5	120469	3.3				
378	14 26 25.22	.19 +03 56 33.7	3.0 17	1	10 .A..	354.0	57.4	M2	+041792	7	120504	3.3	00244	28		
379	14 26 42.19	.14 +04 21 45.7	3.9 21	3	1 .A..	353.7	56.7	MA	+041794	1.8	120516	.7	00245	18		
380	14 28 16.97	.27 +04 59 35.5	4.6 23	3	29 .A..	354.0	57.4	M2	+041794	1.8	120516	.7				
381	14 29 42.19	.14 +04 41 02.7	5.0 21	1	10 .A..	355.7	56.1	HS	+041790	1.4	120516	.7				
382	14 34 42.74	.26 +04 41 02.7	5.0 11	1	10 .A..	355.7	56.1	HS	+041790	1.4	120516	.7				
383	14 35 23.56	.22 +03 44 15.5	5.5 29	3	16 .AA..	354.7	55.3	MA	+041790	1.4	120516	.7				
384	14 35 52.53	.26 -03 23 43.4	4.5 26	4	AC..	347.1	49.9	MA	+04066	.8	00247	5				
385	14 37 35.49	.35 +07 33 19.4	4.0 8	2	21 .A..	357.5	57.5	K5	+071842	.3	120591	.3				

Spectral Type											
EIC	R.A.	DEC.	SDOC	FL	SDFL	OBS	1234	L	B	TYPE	AK3
RA,1950	DEC,1950	SDOC	FL	SDFL	OBS	1234	SD	EA	TMSS	ETM	AFGL
386	14 39 11.0	-33 +08 22	27.8	3.3	25	3	98.	98.	2.0	57.8	G5
387	14 39 22.0	-33 -03 18	37.5	4.5	25	7	.68.	.36.8	4.2	49.4	HSP
388	14 40 25.12	-12 -05 26	36.9	4.1	18	1	6.	A..	346.6	47.5	F5
389	14 43 08.42	-53 +08 22	0.94	5.0	15	0	10.	A..	346.6	47.5	K0
390	14 44 15.95	+35 +07 22	24.0	4.0	34	5	83.	89.	2.3	56.2	MB
391	14 44 33.59	-21 +05 22	38.4	4.8	32	3	39.	AA.	359.2	54.6	MB
392	14 46 01.10	-07 +01 18	53.6	3.4	11	3	34.	SC.	355.0	51.7	K0
393	14 51 11.08	+22 +06 28	41.2	3.6	8	1	12.	99C.	2.8	54.2	K5
394	14 52 59.01	-31 +06 57	47.8	4.0	20	3	62.	98.	4.0	51.8	K5
395	14 54 59.18	-05 +00 01	58.0	2.8	18	2	8.	SB.	356.1	49.2	K0
396	14 56 03.37	-23 +04 21	57.9	5.2	63	11	36.	AB.	356.0	48.7	MA
397	14 56 53.03	-21 +04 55	7.1	5.2	63	11	36.	AB.	356.0	48.7	MA
398	14 57 41.65	+20 +03 27	33.4	7.2	12	1	19.	9A.	51.1	M5	
399	14 57 51.16	-35 +07 50	44.1	4.2	10	2	47.	69.	6.4	53.8	K2
400	14 58 42.62	-13 +02 33	27.3	3.2	96	18	6.	EB.	354.4	46.7	K5
401	14 59 14.94	-19 +00 03	26.4	3.0	56	3	7.	AA.	357.3	48.5	K0
402	14 59 23.28	-26 +08 56	2.4	3.7	12	2	36.	AA.	349.3	42.5	GB
403	14 59 23.28	-21 +02 17	52.4	3.7	12	2	36.	AA.	349.3	42.5	GB
404	15 00 21.98	-34 -07 49	46.2	3.1	28	4	17.	AB.	350.3	42.3	HB
405	15 00 28.75	-21 +02 16	16.4	3.1	16	2	7.	AA.	350.3	42.3	K2
406	15 04 35.06	-39 +09 08	58.9	2.9	14	2	199.	9B.	1.5	021812	1.0
407	15 04 52.98	-24 +06 27	38.0	5.4	7	5	2.	AA.	091781	2.2	120847
408	15 05 05.64	-28 +05 41	22.9	5.7	8	2	10.	TC.	061177	5.1	K0
409	15 05 11.06	-34 -00 49	18.4	5.0	34	5	6.	AB.	356.1	46.7	GB
410	15 05 58.07	-34 -00 49	18.4	5.0	34	5	6.	AB.	356.1	46.7	GB
411	15 08 30.71	-18 +03 22	19.2	4.6	14	2	22.	9B.	353.4	46.7	GB
412	15 08 30.71	-19 -05 19	20.6	4.9	14	2	5.	A..	353.4	46.7	GB
413	15 10 03.45	-14 -00 11	39.4	4.7	17	3	12.	9C.	359.7	46.3	K5
414	15 12 21.79	-23 -02 13	46.5	4.8	5	0	10.	A..	359.7	46.3	K5
415	15 12 26.06	-21 -01 00	3.3	4.8	27	8	9.	AB.	358.5	45.1	MA
416	15 12 21.79	-24 -05 19	0.8	3.7	18	0	5.	A..	355.1	42.4	K2
417	15 12 21.79	-23 -02 13	46.5	4.8	15	50	6A.	355.2	44.5	MB	
418	15 12 41.92	-27 +05 07	27.1	5.3	24	4	40.	9B.	6.5	49.2	K0
419	15 13 25.41	-39 +06 38	55.3	3.9	11	1	26.	9B.	8.5	50.0	K0
420	15 13 30.76	-26 +02 31	50.0	3.4	16	12	9B.	3.	47.3	M5	
421	15 15 49.51	-32 +01 07	14.5	3.5	10	3	7.	SC.	2.5	46.1	K0
422	15 15 51.86	-19 -00 16	45.1	4.0	29	3	13.	AC.	45.2	46.5	K5
423	15 16 46.10	-18 +01 56	56.0	5.0	8	0	5.	A..	357.0	46.5	GB
424	15 18 28.58	-19 -05 38	42.3	4.2	14	9	33.	EB.	356.2	41.1	K2
425	15 18 28.96	-11 +00 53	42.3	5.4	23	0	8.	A..	45.5	49.5	K0
426	15 21 11.30	-18 +02 11	44.5	3.2	14	1	9.	AC.	5.0	45.7	MA
427	15 21 34.92	-41 +09 15	51.1	2.7	73	9	2.	AA.	13.4	49.7	K5
428	15 22 19.41	-24 -02 03	34.2	3.1	23	29	5.	SA.	0.1	120977	2.4
429	15 22 27.48	-20 -05 44	34.0	4.3	20	3	55.	AB.	42.8	46.8	MB
430	15 26 13.36	-15 +04 09	00.3	5.4	17	17.	9B.	18.	357.0	46.5	K0
431	15 27 58.22	-28 +05 25	53.8	7.5	6	1	9.	EB.	8.1	140564	1.2
432	15 26 19.34	-23 -06 00	57.2	1.7	15	0	6.	A..	355.2	40.2	K1
433	15 29 48.76	-30 -01 36	51.1	2.8	15	2	8.	SC.	2.7	41.7	K5
434	15 29 48.76	-30 -01 36	41.1	4.6	9	2	35.	GB.	12.5	46.8	GB
435	15 29 54.45	-16 +03 48	32.7	5.1	49	12	25.	SC.	8.7	46.8	SD
436	15 30 23.11	-25 -01 09	46.8	5.2	19	2	6B.	3.	41.5	49.0	SD
437	15 34 07.03	-17 -02 39	43.2	3.9	11	0	6.	A..	355.2	40.2	K1
438	15 34 13.19	-22 -05 51	46.8	2.3	9	1	8.	AB.	355.2	38.1	K2
439	15 38 37.62	-15 -03 50	03.4	5.1	10	2	6.	SC.	2.4	38.6	SD
440	15 41 01.39	-20 -01 33	09.7	3.6	170	31	70.	BB.	5.1	39.5	SD

EIC	R, ⁺	DEC, ⁻	SDRA	DEC, ⁻	SDOC	FL	SDFL	OBS	1234	L	B	TYPE	AGK3	EAG	SAO	ESA	1MSS	ETH	AFGL	EAF	...DM...	HD
441	15 41 36.41	-30	002 32 50.2	5.0	002 32 50.2	3.7	16	3	69	79B.	16.2	M2	+061875	.7	121156	.5	+0C93	30	ED+08	3075		
442	15 41 45.35	-35	008 17 52.8	3.7	16	3	69	79B.	16.2	45.0	14.2	K0	+061876	3.9	121157	.7	+0C94	11 1794	130	ED+06	3063	140573
443	15 41 45.26	-22	006 34 53.7	3.1	260	44	163	99BA	14.2	44.1	16.3	K0	+061876	3.9	121157	4.3			ED+08	3076	140549	
444	15 42 05.70	-52	008 16 09.4	3.9	5	0	9	A..	14.2	43.5	14.2	K2	+061876	2.5	121162	2.8			ED+06	3076	140553	
445	15 43 45.71	-46	006 15 54.7	6.5	8	1	10	A..	14.2	43.5	14.2	K0	+071866	1.2	121186	1.2	+0295	45	ED+07	3023	140554	
446	15 44 00.26	-34	007 30 27.3	4.2	18	2	73	99B.	15.7	40.7	14.1	K0	+071758	2.5	121191	1.7			ED+01	3011	141144	
447	15 44 56.52	-27	001 42 01.0	4.2	9	2	8C.	9.3	40.7	14.1	K5	+071758	2.5	121191	1.7			ED+01	3017			
448	15 45 13.87	-17	-02 09 57.6	4.0	12	1	6	9B.	12.1	43.3	14.1	K5	+071915	3.5								
449	15 45 18.81	-31	004 27 07.5	5.1	5	0	7	A..	12.4	42.2	12.4	K0	+071915	2.5	121193	3.2			ED+0+	3062	141027	
450	15 45 20.49	-33	000 50 28.6	6.0	22	2	14	AA..	14.1	40.1	14.1	M2	+001664	1.7								
451	15 46 18.21	-14	-00 50 56.4	3.7	27	3	12	9B.	6.9	38.9	13.8	MA	-002641	1.2	140773	1.6	00272	42	ED+00	3011	141377	
452	15 46 19.07	-30	005 33 16.9	4.4	41	5	59	9AA..	10.5	42.6	14.0	MB	+052060	1.1	121200	2.5	+0C97	6	ED+05	3033	141420	
453	15 47 45.86	-17	002 20 49.5	4.7	20	2	12	AA..	10.5	40.5	14.0	K0	+071871	.7	121215	1.3	00273	42	ED+0C	3007	141680	
454	15 49 19.38	-22	004 37 35.8	5.9	12	2	25	SB..	13.1	41.7	14.1	A2	+081886	3.7	121216	1.0			ED+04	3056	141795	
455	15 48 45.83	-41	-08 01 12.0	4.1	6	0	15	AC..	17.1	43.4	14.1	K5	+081886	3.7	121221	3.6			ED+08	3056	141835	
456	15 51 56.78	-36	005 26 22.2	4.1	5	1	7	AC..	14.7	41.3	14.1	K0	+052073	2.8	121248	1.6			ED+05	3103	142843	
457	15 52 12.99	-25	004 52 26.7	4.3	15	1	18	AB..	14.1	41.1	14.1	K0	+001664	1.7								
458	15 52 17.63	-24	003 47 36.2	3.9	16	1	8	9B..	5.1	35.9	14.1	M5	+052075	1.4	121255	1.2	+0298	9	ED+06	3118		
459	15 52 18.02	-21	005 43 57.0	4.6	18	2	49	9A..	15.1	41.4	14.1	K5	+052075	2.0								
460	15 52 23.91	-12	-02 01 53.0	2.0	13	2	51	9C..	6.9	37.0	14.1	K2	+081894	2.1	121257	2.7			ED+09	3116	142536	
461	15 52 24.28	-49	-08 43 48.7	4.0	5	0	31	AA..	18.6	42.9	14.1	K5	+081894	2.1	121257	2.7			ED+01	3114		
462	15 52 30.21	-18	-03 50 16.0	3.6	37	3	14	9A..	5.1	35.9	14.1	K5	+081894	2.1	121257	2.7			ED+09	3116	142536	
463	15 53 13.29	-31	005 51 13.6	5.5	5	0	12	CA..	15.4	41.3	14.1	K5	+052079	.3	121267	.5			ED+06	3124	142662	
464	15 53 38.93	-57	008 04 49.8	5.3	5	0	16	AA..	18.0	42.3	14.1	K2	+001897	3.0	121270	2.1			ED+06	3108	142781	
465	15 54 19.29	-18	-00 48 43.2	4.6	14	2	7	9A..	6.5	37.3	14.1	K5	-002055	2.3	140646	2.8			ED+00	3018	142848	
466	15 57 15.35	-29	-02 09 50.0	5.0	15	1	11	AB..	7.6	37.6	14.1	K5	+001909	2.5	121301	2.4			ED+01	3154	143795	
467	15 57 28.96	-20	000 45 52.0	2.5	16	1	9	9B..	10.6	37.6	14.1	K5	+041939	2.1	121311	2.5			ED+05	3103	143795	
468	15 58 04.29	-26	004 51 58.3	5.5	7	1	7	A..	15.1	39.7	14.1	K5	+052079	3.0	121315	4.0			ED+04	3059	143553	
469	15 58 21.93	-29	004 33 58.6	5.3	12	2	8C..	14.0	39.5	14.1	K0	+081971	4.6	121319	4.7			ED+09	3133	143689		
470	15 59 11.20	-43	-09 03 05.0	3.1	5	0	18	A..	20.1	41.6	14.1	K5	+071871	4.6	121319	4.7			ED+03	4136	143731	
471	15 59 58.80	-33	-08 21 23.4	4.0	9	0	27	A..	2.3	31.6	14.1	K5	+061912	2.5	121331	1.6			ED+09	3135	143766	
472	16 00 12.60	-39	-06 59 02.0	3.7	5	0	14	A..	20.2	41.4	14.1	K5	+031918	1.7	121340	1.6			ED+04	3105	144065	
473	16 01 22.91	-20	003 51 50.4	5.4	15	2	21	9B..	14.6	38.5	14.1	K0	+061866	1.6	121349	2.4			ED+05	4335	144530	
474	16 01 51.76	-43	-06 08 49.5	6.4	6	1	8	A..	17.2	40.6	14.1	K0	+040947	2.1								
475	16 03 19.59	-20	-06 00 19.4	4.8	9	1	6	SB..	5.1	32.4	14.1	K0	+040966	4.3	00276	7			ED+03	3878	144636	
476	16 04 23.10	-18	-03 44 37.3	2.5	47	0	8	AA..	7.4	33.6	14.1	MA	+02777	3.7	1826	95						
477	16 05 59.37	-10	-01 24 18.3	1.8	56	11	7	AA..	1.8	34.6	14.0	MA	+072013	1.0	121304	1.6			ED+03	3143	145461	
478	16 06 03.11	-28	008 39 55.8	2.7	156	23	403	99BA	14.2	39.9	14.1	HB	+081922	.7	121363	.3	+0302	36	ED+05	3141	145002	
479	16 06 11.66	-26	008 44 39.4	2.7	169	23	403	99AA	14.2	40.0	14.1	HB	+081923	1.0	121385	1.1	+0303	36	ED+05	3153	145050	
480	16 06 28.72	-20	003 35 06.3	4.7	28	2	21	AA..	15.2	37.3	14.1	K5	+031924	2.3	00278	12			ED+03	3132	145055	
481	16 06 43.56	-32	006 30.7	5.0	10	1	24	AA..	18.4	35.7	14.1	K5	+061690	1.1	121392	2.1			ED+06	3169	145148	
482	16 06 45.79	-30	003 52 59.5	5.2	6	0	7	A..	15.5	37.4	14.1	K0	+040966	4.3	00276	7						
483	16 07 13.08	-15	-03 20 09.2	3.7	47	3	8	AA..	8.3	33.2	14.1	K0	+161001	2.5	00279	25	1828	93	ED+03	3534	145206	
484	16 08 23.48	-35	-07 54 28.0	3.9	14	2	91	9AB..	20.2	39.1	14.1	MA	+072013	1.0	121406	1.6			ED+03	3143	145461	
485	16 10 46.65	-33	-05 08 50.6	5.5	40	6	6	9B..	17.6	37.2	14.1	K0	+052107	1.1	121431	1.7	+10304	12	ED+05	3165	145392	
486	16 11 43.02	-16	-03 34 04.8	3.1	902	109	56	9AA	8.8	32.2	14.1	MA	+161052	1.0	00260	47	1837	55	ED+03	3103	145051	
487	16 11 45.90	-32	-06 01 37.5	5.0	10	2	24	BB..	18.7	37.4	14.1	G5	+061690	1.2	121443	1.0			ED+06	3184	146054	
488	16 12 16.72	-37	-07 58 57.7	3.7	10	1	60	9B..	20.9	38.3	14.1	K0	+072021	.7	121451	.7			ED+06	3158	146169	
489	16 13 11.28	-14	-02 16 05.1	1.7	33	3	5	AA..	10.4	32.6	14.1	K0	+0281	1.1								
490	16 15 40.34	-25	-04 34 17.7	3.1	118	15	59	9AA	8.6	30.8	14.1	K0	+161086	.8	00252	14	1838	97	ED+06	4006	146791	
491	16 16 08.20	-40	-02 22 49.8	3.9	8	25	9E..	20.8	37.1	14.1	K5	+072030	1.5	121490	1.6			ED+07	3137	146930		
492	16 17 46.24	-33	-05 59 02.0	5.9	8	1	9	CC..	19.5	36.1	14.1	K0	+0281	1.1								
493	16 18 18.42	-09	-07 34 56.2	3.3	27	5	12	BB..	6.3	34.4	14.1	K0	+021919	2.5	121543	2.5	-10337	29	1847	36		
494	16 19 49.32	-22	-02 05 34.0	2.6	8	3	71	AB..	7.0	34.2	14.1	K0	+021919	2.5	121543	2.5			ED+03	3173	146510	
495	16 20 17.75	-22	-07 05 34.0	2.5	42	4	7	AB..	7.0	34.4	14.1	K0	+021919	3.0	-10338	10	1851	177	ED+06	4419	147575	

EIC	R.A. 1950	DEC. 1950	SDOC	FL	SDFL	OB5	1236	L	B	TYPE	AAG3	EAG	SAO	ESA	TMSS	ETM	AFGL	EF	DM	HD	
552	17 17 15.07	+02 21 22.2	.44	331	44	.9AA	24.0	21.3	MB	+022658	1.0	00301	1.1	1955	.27	ED+02 3296	156560				
552	17 20 22.29	-13 +00 55 10.9	3.3	25	3	.9C	23.3	20.0	MA	+002065	1.5	102331	1.2	ED+02 3425	157350						
553	17 21 32.44	-32 +05 29 59.6	3.6	11	1	.21	21.7	21.9	K	+052260	.7	102343		ED+05 3304	157760						
554	17 21 33.68	-33 +08 53 51.0	3.6	18	2	.343	99B	31.0	K2	+052100	1.0	102346	1.8	+10326	38	ED+08 3405	157617				
555	17 21 34.27	-38 +08 39 59.2	3.4	7	1	.35	9E	30.8	23.3	K0	+052101	1.4	102347	1.4	ED+08 3404	157618					
556	17 21 54.72	-38 +07 09 59.2	6.6	5	0	.9	A.A	29.3	23.6												
557	17 22 55.46	-28 +08 59 05.8	4.4	18	2	.237	.9B	31.2	K5	+082104	.7	102366	1.2	+10327	23	ED+09 3368	157623				
558	17 23 54.07	-27 +07 35 16.8	3.6	8	1	.16	.9CA	30.1	22.4	A0	+072194	1.0	102381	.5	ED+07 3368	157778					
559	17 24 01.82	-21 +04 10 56.2	3.4	118	17	.86	10A	26.8	K0	+042129	.3	102386		00304	15	ED+04 3422					
560	17 25 19.94	-30 +08 28 57.3	3.3	101	14	.273	A9AB	31.0	22.4	HA	+082112	.5	102386	15	ED+08 3413	158228					
561	17 25 40.24	-32 +05 04 41.8	4.1	12	1	.26	.99B	27.8	20.8												
562	17 26 32.08	-15 -07 25 30.0	3.1	189	29	.9B	16.5	14.5													
563	17 29 48.62	-46 +08 21 19.0	2.7	6	1	.20	AA,C	31.4	21.4												
564	17 30 42.88	-25 +02 28 24.2	5.0	17	1	.11	.9B	26.0	16.5	K5	+022110	.7	102499	1.1	00306	23	ED+02 3349	159186			
565	17 30 43.27	-22 +00 08 09.9	3.6	43	6	.12	.9AB	23.8	17.4	HA	+022068	3.2	102500	3.2	00305	5	1981	90	ED+00 3717	159187	
566	17 31 24.66	-28 +01 56 46.3	6.0	46	6	.5	.A.	22.0	16.2												
567	17 32 22.39	-30 +03 23 30.8	4.9	12	1	.6	.BA.	27.1	19.2	K5	+032099	1.0	102530	1.0	+10332	27	ED+05 3450	159466			
568	17 33 04.43	-27 +05 02 52.8	6.1	21	2	.12	.9B	28.7	19.2	MA	+082283	.7	102541	1.4	+10332	27	ED+05 3428	159627			
569	17 35 17.56	-15 +08 38 56.7	4.8	4	0	.6	A..A	32.4	20.3	K2	+082144	1.4	102581	2.5	ED+08 3457	160030					
570	17 35 32.51	-17 +04 05 11.0	4.1	18	2	.18	.8AC	28.1	20.9	K5	+072238	1.0	102587	1.7	00309	8	ED+07 3423	160157			
571	17 35 43.62	-34 +07 05 03.8	4.1	10	1	.28	.9B	30.9	19.5												
572	17 36 30.31	-32 +06 05 15.7	3.7	11	1	.20	.AB.	30.1	18.9	H2	+062104	1.0	102603	1.4	ED+06 3483						
573	17 36 41.80	-24 +08 27 08.2	4.1	9	1	.48B	28.6	18.1	H0	+042161	1.7	102603	3.0	00311	12	ED+04 3470					
574	17 36 55.05	-12 +01 37 50.5	4.1	24	3	.7	A57	26.0	16.7												
575	17 37 01.77	-23 +03 25 05.5	3.6	19	3	.7	A.	27.6	17.5	K0	+022113	3.5	102615	3.2	00312	18	ED+03 3466	160359			
576	17 37 31.17	-44 +07 49 37.9	4.8	6	1	.84	31.8	19.4	K0	+022268	1.2	102627	1.2	ED+07 3434	160509						
577	17 37 35.61	-27 -02 07 35.7	3.4	103	10	.49	22.6	14.8	HB	-021051	1.4	102798	.8	00313	10	1995	116	ED+02 4425	160471		
578	17 37 53.78	-31 +06 25 22.5	4.2	11	2	.25	.8BC	30.7	18.8	K2	+062109	1.0	102630	1.0	ED+06 3490	160558					
579	17 38 33.14	-17 +04 33 46.4	3.9	10	1	.5	.AB.	28.9													
580	17 39 05.76	-29 +06 20 12.4	4.7	17	2	.39	.AB9	30.6	18.4	K0	+062112	.3	102646		ED+06 3498	160781					
581	17 39 05.87	-21 +03 37 02.3	3.9	7	2	.13	.9E	31.0	18.6												
582	17 39 55.72	-23 -04 49 37.9	2.7	100	23	.10	.B4	20.5	12.9	HA	+141821	1.9	00315	17	1998	94	ED+04 4332	160869			
583	17 40 29.56	-24 +03 47 30.1	3.1	7	2	.5	.7D	26.4	16.9												
584	17 40 37.34	-15 +04 35 10.2	2.1	37	0	.4	.AA	21.5	13.3												
585	17 40 59.59	-22 +04 35 15.7	3.7	237	31	.9AA	29.2	17.2	K0	+052337	102746	.7	00317	15	2000	62	ED+04 3489	161096			
586	17 45 01.70	-28 +05 37 14.5	4.3	7	1	.6	.AA	30.7	16.8	K5	+052337	102746	.7	00317	15	2000	22	ED+05 3458	161820		
587	17 45 04.29	-21 +03 37 38.6	2.2	86	11	.8A	30.2	22.7	HB	+062128	141691	.3	00320	19	2008	34	ED+06 3532	161885			
588	17 45 26.77	-29 +06 25 09.4	4.7	36	4	.55	.AB	31.4	17.0	HA	+062128	.7	102757	.7	+10336	34	ED+06 3532	161885			
589	17 46 17.06	-12 +03 37 12.7	3.9	17	.7	.AB	28.9	15.6													
590	17 48 15.02	-28 +06 25 45.4	3.0	9	1	.10	.9BA	29.9	15.5	K5	+062128	.7	102821	.7	00321	6	ED+04 3530	162387			
591	17 48 34.07	-22 +06 43 03.7	4.4	8	1	.12	.AC	32.1	16.5												
592	17 48 37.08	-28 +05 42.6	5.1	14	2	.19	.AB	30.7	15.8	K5	+052349	.7	102827	1.1	ED+05 3521	162486					
593	17 49 12.02	-17 -05 00 36.3	3.2	10	0	.6	.AA	31.5	16.8												
594	17 49 31.48	-27 +04 29 53.5	5.8	35	4	.24	AA	30.1	15.3	K5	+042211	102846	.00325	12							
595	17 49 34.00	-29 +07 09 47.5	4.6	7	1	.8	A.B	32.6	16.5	H0	+072283	.7	102849	1.9	ED+07 3480						
596	17 49 55.05	-26 +06 46 42.2	4.7	41	6	.4	.AB7	32.3	16.2	HA	+062141	.3	102850	.5	+10337	16	ED+06 3552	162753			
597	17 49 57.62	-28 -05 07 59.1	6.0	22	7	.6	B.A	20.6	10.1												
598	17 50 03.48	-26 +01 18 52.5	3.3	44	3	.43	.27.3	31.7	K5	+012036	5.1	102861	6.2	00326	24	ED+01 3526	162774				
599	17 50 26.71	-19 -02 34 09.1	3.1	190	22	.50	.9A9	23.8	11.7	MC	141939	3.2	00327	33	2020	114	ED+02 4492	162812			
600	17 50 34.46	-17 -05 55 07.3	4.0	9	1	.10	.9B	31.3	15.4												
601	17 51 01.15	-15 +05 30 34.5	4.6	9	1	.10	.9B	31.3	15.4												
602	17 52 49.65	-31 +05 42 41.0	4.1	16	1	.21	.9B	31.6	15.1	K2	+052367	.7	102916	.8	ED+05 3542	163311					
603	17 53 31.89	-20 -01 24 12.9	6.0	6	5	.48	25.3	11.6	MA	-012155	.7	141966	1.7	00330	29	ED+01 3419	163403				
604	17 54 08.97	-43 -06 25 37.5	2.6	9	0	.6	.A..9	20.9	9.1												
605	17 54 14.49	-31 +06 50 43.8	3.3	13	2	.24	.8B.	32.9	15.3	K5	+062152	.5	102943	1.1							

FIG	R.A. 1950	SDOC	DEC. 1950	FL	SDFL	OBS	L	B	TYPE	AGK3	EAG	SAO	ESA	TMSS	ETH	AEGL	EA F	... DM ...	HD		
606	17 56 10.91	.09	-06 38 52.2	3.5	27	6	4	20.9	K5	142005	5.6	-10388	5	BD-06 4688	163932	ED+02 4688	163932				
607	17 56 41.66	.28	-06 06 30.9	4.9	36	7	.09	21.4	HA	142010	5.6	-10339	24	BD-06 4690	164014	ED+02 4690	164014				
608	17 56 57.33	.17	-04 49 06.6	3.1	43	6	6	22.6	K0	142012	1.4	00333	32	ED-04 4384	164064	ED+02 4384	164064				
609	17 57 37.38	.33	-07 21.7	3.4	11	1	12	9.0A				10344	68								
610	17 58 03.93	.37	+05 37 01.5	4.9	19	2	24	.9AA				+10345	42								
611	17 59 25.70	.37	+08 26 58.5	3.3	37	1	16	9539	34.9	14.6		+10346	38								
612	18 00 06.79	.62	+07 45 33.1	2.4	6	1	10	6.4	M2	+022317	3.3			BD+07 3534							
613	18 02 56.06	.35	+02 30 02.1	4.4	50	5	6	.AA	K0	+022199	5.0	123107	4.8	00135	12	ED+02 3582	165341	ED+02 3582	165341		
614	18 03 45.69	.16	+03 23 45.9	2.4	32	3	9	.9AB	M4	+022193	.3			00336	9	BD+03 3588					
615	18 03 59.15	.16	-08 13 37.2	2.6	25	4	9	C.9					-10395	13	2065	44					
616	18 04 33.35	.16	-05 45 11.8	3.6	10	1	4	9.B													
617	18 04 43.65	.31	+08 22 19.9	2.9	24	3	95	.9AA													
618	18 04 56.69	.33	+08 43 33.6	2.7	29	4	236	7AA	35.8	13.7	G5	+062238	.7	123140	.3	+10348	34				
619	18 05 56.22	.30	+06 32 07.4	3.6	84	15	48	A9C	33.8	12.6	MB	+022193	.3	123141		+10349	19	ED+08 3582	165760	ED+08 3582	165760
620	18 05 11.25	.49	+08 00 24.4	4.1	8	1	20	AA..													
621	18 06 01.27	.49	+08 48 48.6	3.1	5	0	39	AA..													
622	18 06 09.06	.21	+05 16 43.6	3.9	44	3	36	AA..													
623	18 06 36.76	.24	+05 30 21.2	2.9	15	2	14	AC9	20.5	5.4											
624	18 07 14.01	.30	-08 31 03.7	3.3	10	1	10	B.A													
625	18 08 10.17	.18	+03 18 47.5	5.4	22	3	9	AA..	31.2	10.6	K0	+022217	1.0			00339	11	BD+03 3620			
626	18 08 34.64	.30	+07 52 23.1	3.9	6	2	B..9	35.4													
627	18 08 47.01	.27	-08 37 52.3	3.0	9	1	6	A.B													
628	18 09 16.12	.25	+05 27 33.8	6.1	15	4	20	.BA4	33.3	11.3	K5	+052423	.8	123235	1.6			ED+05 3634	166712	ED+05 3634	166712
629	18 09 45.93	.46	+08 12 47.8	5.3	6	1	23	A8.D	35.9	12.4	K0	+022251	2.8	123239	2.1			ED+06 3610	166844	ED+06 3610	166844
630	18 09 45.93	.46	+08 12 47.8	5.3	6	1	23	A8.D	35.9	10.5	HA	+022253	1.4	123253	7			ED+04 3649	166729	ED+04 3649	166729
631	18 10 19.99	.47	+04 02 22.7	4.7	23	3	10	AA..													
632	18 11 21.06	.12	+02 22 40.4	2.6	22	1	6	AA..													
633	18 11 33.07	.25	+05 17 16.0	4.3	17	2	15	.8AC	33.4	10.7	H5	+052431	1.6					ED+02 3552	167162	ED+02 3552	167162
634	18 11 39.38	.17	+04 22 47.8	5.2	11	2	17	.95													
635	18 11 39.95	.30	+05 20 49.9	4.5	29	4	19	.AA..	35.5	10.2	K5	+022291	1.1	123277	3.0			ED+04 3555	167218	ED+04 3555	167218
636	18 13 34.46	.19	+02 21 34.5	3.0	139	21	78	.9A9	31.0	8.9	MS	+052432	2.5			+10353	62	ED+05 3553		ED+05 3553	
637	18 14 07.19	.23	+03 40 27.1	2.6	10	2	.9B	32.3	9.4	H3	+022241	1.4	123308	.7			ED+04 3557	167654	ED+04 3557	167654	
638	18 15 41.42	.34	+06 55 03.3	4.2	31	6	.98E	35.4	10.5	K3	+022241	1.4	123316	1.4			ED+03 3556	167766	ED+03 3556	167766	
639	18 16 03.50	.55	+08 36 23.7	6.1	5	41	.9B	37.0	11.2	KS	+022266	2.5	123344	2.8			ED+08 3642		ED+08 3642		
640	18 16 44.05	.26	+07 14 17.1	3.5	19	3	.9B	35.8	10.5	K0	+022379	1.7	123353	1.0			ED+07 3629	166387	ED+07 3629	166387	
641	18 17 00.00	.30	-08 04 44.4	4.2	9	1	7	.AA..	22.1	3.3											
642	18 18 20.75	.28	+05 24 48.2	4.3	49	2	8	.9B..	34.8	9.5	MS	+052459	2.0	123376	31			ED+05 3700		ED+05 3700	
643	18 18 22.19	.24	+03 21 12.2	5.2	20	2	.9B..	32.5	8.3	GS	+022260	1.9	123377	1.6			CO+03 3660	166656	CO+03 3660	166656	
644	18 18 28.64	.27	-06 19 34.6	2.9	9	0	.AA..	22.1	2.9												
645	18 18 42.21	.23	-02 05 08.0	3.4	122	15	10	.ACA	36.1	6.9	K0	+072399	3.0	123409	.7						
646	18 20 23.56	.21	+07 10 50.5	3.6	8	1	10	.ACA	36.1	9.6	K2	+072399				00348	43	ED+07 3661	169113	ED+07 3661	169113
647	18 20 46.32	.17	-04 31 32.1	2.5	21	2	5	.AA..	21.7	4.2											
648	18 21 02.42	.36	-08 54 09.3	3.6	10	1	24	.BA..	21.9	2.0											
649	18 21 22.55	.16	+03 35 43.4	4.0	32	8	17	.6C..	33.0	7.8											
650	18 21 57.18	.54	+08 44 03.4	3.9	0	35	AA..	37.7	10.0												
651	18 22 29.35	.45	+08 17 07.4	3.5	9	1	.9C..	37.4	9.7	HO	+082264	.5	123446	.3			ED+06 3680		ED+06 3680		
652	18 23 01.82	.26	+05 44 16.4	3.9	36	11	.6C..	35.1	8.4												
653	18 23 14.13	.40	+03 09 09.0	2.6	15	2	.AB8	37.2	9.4	HO	+082258	1.4	123462	1.1			ED+07 3652	166689	ED+07 3652	166689	
654	18 24 23.49	.22	+03 52 55.9	3.5	153	24	67	.AA9	33.6	7.2	MB	+082276	.7	123489	1.0			ED+03 3713	169331	ED+03 3713	169331
655	18 24 27.26	.36	+08 09 43.9	2.6	15	2	37	.9CB	37.5	9.2	K5	+082296	1.5	123491	1.1			ED+06 3677	169323	ED+06 3677	169323
656	18 24 43.96	.34	+07 29 33.3	3.4	72	9	60	CA4	36.9	6.6	K0	+062258	1.4	123502	.7						
657	18 25 49.40	.62	+06 53 39.0	6.6	6	1	7	.AF..	36.5	6.6	K0	+062258	1.4	123502	.7						
658	18 26 49.98	.22	-07 45 14.7	4.0	15	2	6	.AA..	23.3	1.7											
659	18 26 57.96	.30	-08 42 31.6	3.7	39	6	15	.AA..	22.5	1.3											
660	18 25 10.84	.38	-08 43 51.9	4.6	9	0	5	.AB..	22.5	1.2											

EIC	R.A.	DEC.	SDRA	DEC. 1950	SDOC	FL	SDFL	OBS	1234	B	TYPE	AGK3	EAG	SAO	ESA	THSS	ETM	AFGL	EAF	...DH...	HD
661	18 25 20.80	-22	403 42 58.6	3.9	34	3	13	.98	33.6	7.0	K2	+032277	123513	.5	00352	4	BD+03 3716	170137			
662	18 25 46.10	.41	407 55 17.4	4.1	41	1	28	.98	37.4	8.8	K5	+072420	.7	123522	.3	ED+07 3702	170270				
663	18 26 05.13	.52	-07 46 25.3	3.5	11	2	6	.6	23.5	1.5											
664	18 26 22.14	.37	+06 15 51.8	4.3	18	3	8	.90	36.0	7.9			+10358	2							
665	18 26 26.52	.40	+08 30 06.8	3.4	6	1	42	CA..	39.0	6.9											
666	18 27 27.83	.29	-08 13 23.1	2.1	17	1	9	A.B	23.2	1.0											
667	18 28 29.92	.35	+08 02 31.9	3.6	16	2	36	ABS	37.8	6.1											
668	18 28 48.62	.27	+07 52 18.1	3.6	7	1	19	A..	37.7	6.1											
669	18 28 54.42	.20	+06 20 42.3	3.5	59	4	28	AB.	36.6	6.5											
670	18 29 01.34	.36	+07 59 24.3	3.5	5	1	9	A..	37.9	8.1											
671	18 29 04.91	.34	-08 22 53.7	3.5	14	2	9	B..	23.4	3.3											
672	18 30 09.72	.19	+06 15 29.1	5.0	20	2	15	A..	34.6	6.1											
673	18 30 27.55	.28	-07 28 35.7	4.3	25	3	15	A..	24.2	5.6											
674	18 31 22.27	.20	+05 40 23.8	3.7	21	6	18	..	34.2	5.6											
675	18 31 39.62	.21	-01 01 07.6	4.3	43	4	1	AAB	30.1	3.4											
676	18 31 51.02	.43	+05 42 26.6	4.0	4	1	105	ARC.	38.6	7.8											
677	18 31 52.70	.44	+07 45 56.1	4.6	9	1	27	ACA	33.0	7.3											
678	18 31 55.07	.23	-08 37 12.7	4.3	12	2	13	B..	23.4	-1.2											
679	18 32 07.84	.32	-08 39 07.2	2.6	16	1	16	A..	23.4												
680	18 32 26.13	.32	+07 01 35.7	3.9	20	2	11	A..	37.4	6.9											
681	18 32 28.96	.25	-08 16 59.8	2.7	131	21	101	..	23.8	4.2											
682	18 32 46.89	.22	-08 43 52.3	3.5	16	1	17	B..	23.4	-1.4											
683	18 32 57.16	.30	+06 25 04.4	3.2	26	3	7	CA..	36.9	6.5											
684	18 33 35.51	.32	+07 38 36.9	3.5	40	9	51	B..	38.1	6.9											
685	18 33 37.27	.35	-08 55 12.7	2.7	23	2	17	AA	23.3	-1.7											
686	18 34 21.33	.16	-07 39 46.3	2.3	101	18	10	..	24.5	-1.3											
687	18 34 44.06	.21	-02 41 52.0	3.5	125	18	24	AA	29.0	1.9											
688	18 34 56.97	.09	+03 10 34.6	3.8	12	2	4	..	34.2	4.6											
689	18 35 55.22	.29	-03 37 08.7	3.9	7	2	9	..	23.8	7.0											
690	18 35 57.48	.18	+08 47 20.4	2.7	537	73	177	BAA	39.3	6.9											
691	18 36 32.37	.24	+01 38 31.2	4.9	19	2	6	..	33.0	3.5											
692	18 37 15.79	.55	+03 41 08.5	4.1	4	34	AC..	39.4	6.6												
693	18 37 17.54	.21	-07 50 17.1	2.7	42	6	7	..	24.7	1.0											
694	18 39 15.14	.27	+06 23 12.4	3.5	42	4	31	A..	37.6	5.1											
695	18 39 30.81	.30	+06 46 5.7	3.7	21	3	9	..	37.9	5.2											
696	18 39 31.29	.07	-02 48 13.3	2.6	41	4	4	..	29.4	4.8											
697	18 39 48.33	.21	-02 20 26.8	2.2	135	29	14	..	28	29.9	1.0										
698	18 39 51.88	.33	-08 35 00.9	9.9	1	1	4	..	26.3	-1.9											
699	18 39 54.38	.25	+04 34 19.9	2.7	20	2	2	..	AA	36.0	4.1										
700	18 40 06.64	.36	+03 35 02.7	4.4	4	4	0	9	..	39.6	5.9										
701	18 40 25.46	.39	+08 15 30.6	4.1	6	2	16	B..	39.4	5.7											
702	18 40 38.85	.26	+06 43 19.5	4.6	23	3	13	..	38.0	4.9											
703	18 43 00.93	.12	-05 38 58.9	5.5	25	2	6	..	27.3	-1.3											
704	18 43 17.25	.31	-08 38 31.2	2.5	15	3	12	B..	24.7	-2.7											
705	18 43 19.89	.28	+08 41 21.1	3.1	57	12	119	OB..	40.1	5.2											
706	18 43 38.67	.43	+08 09 50.0	2.9	9	1	29	..	39.7	4.9											
707	18 44 00.18	.42	+08 02 35.8	3.2	5	0	16	A..	39.6	4.8											
708	18 44 48.52	.25	-05 45 40.3	4.9	49	8	4	..	27.4	-1.7											
709	18 44 53.32	.27	+05 23 58.2	3.7	52	5	28	..	37.3	3.4											
710	18 47 00.02	.33	+08 32 09.2	2.8	35	3	162	9AA	40.4	4.9											
711	18 47 00.16	.07	-05 58 14.5	2.2	34	3	3	..	27.5	-2.3											
712	18 47 36.98	.19	-07 58 00.1	2.6	226	35	50	..	BA	25.8	-3.4										
713	18 47 39.93	.35	+07 02 45.2	1.4	14	2	6	..	29.1	3.5											
714	18 48 00.40	.29	+07 23 56.4	3.9	7	1	11	A..	39.5	3.6											
715	18 48 52.84	.30	+08 01 17.0	2.9	10	20	.9A	40.1	3.7												

	R.A.1950	DEC.1950	L	B	TYPE	AGK3	EAG	SAO	ESA	TNS	ETM	AFCI	EA	DM	HD
FL	SDFL	FL SDFL	OBS	1234											
716	16 51 19.44	.16 +00 35 40.9	45	3	.49	33.8	-2.2								
717	16 52 33.31	.34 +00 11 48.5	27	3	.94	40.7	3.0								
718	16 52 44.27	.32 -00 15 06.4	3.5	22	1	26.1	-6.6								
719	16 53 00.90	.38 +00 17 16.4	3.2	9	2	31	.8.8	40.8	2.9	K5	+042425	.8	124082	1.2	
720	16 54 24.28	.23 +00 37 00.1	4.4	19	4	90	37.7	.9							BD+04 3923 175786
721	16 54 51.93	.36 +00 37 50.5	3.9	30	4	AC9	39.6	1.8	A2	+062381	1.4	124093	2.6	+10367 23	
722	16 55 39.64	.30 +00 11 22.9	3.6	19	8	43	61.0	2.3							BD+06 3984
723	16 55 47.37	.32 +00 75 08.0	3.4	15	2	90.9	40.8	2.1	H2	+072533	.3				BD+07 3911
724	16 55 55.65	.25 +00 35 49.6	3.4	100	20	65	.AA	37.9	.6						
725	16 56 03.71	.36 +00 38 47.7	4.4	36	3	14	.AA	39.7	1.5						
726	16 56 59.44	.30 +00 51 27.0	4.6	46	7	37	.AA	38.6	.7						
727	16 57 15.86	.25 +00 01 02.2	4.2	12	2	6	.B.9	39.3	.9						
728	16 57 26.92	.38 +00 8 12.0	3.1	6											
729	16 57 52.50	.26 +00 4 50 08.8	4.6	13	3	13	OBG	38.3	1.9						
730	16 58 58.82	.39 +00 8 15 08.1	3.7	27	4	72	7AAA	41.5	1.6						
731	16 59 03.33	.16 +00 5 41.7	3.5	68	7	4	.AA	29.0	-4.9	K0					
732	16 59 15.43	.34 +00 5 21 56.0	3.9	6	2	7	.EE	39.9	2.2						
733	16 59 22.29	.36 +00 7 44 27.9	3.1	20	2	31	.AA	41.1	1.3	K5	+072546	1.9	124172	2.3	
734	16 59 56.54	.22 +00 4 45 31.3	3.6	16	1	8	.AA	39.5	-2						BD+07 3934 176826
735	16 59 57.02	.33 +00 8 17 59.2	3.4	30	3	58	90.9	1.4	K2	+082445	1.6	124184	2.6	+10398 116	
736	19 00 14.62	.31 +00 8 22 56.1	3.1	63	13	91	89A	41.7	1.4						BD+08 3951 176981
737	19 00 39.67	.27 +00 8 22 56.2	3.4	13	1	6	.CC	37.9	-7						
738	19 00 52.92	.26 +00 7 26 15.7	3.5	125	46	90	41.0	.6							+10401 16 2310 153
739	19 01 10.29	.28 +00 8 18 00.0	2.8	19	1	6	AG..	41.8	1.1						+10402 25
740	19 01 43.77	.21 +00 4 45 37.8	2.5	432	73	44	.AA	29.3	5.5	NP	+022374	1.0	1242985	1.1	
741	19 02 16.31	.16 +02 54 27.0	3.6	43	4	9	.AA	37.1	-1.6	MB					BD+02 3776 177494
742	19 02 22.50	.24 +00 3 06 55.1	2.7	8	2	7	.CC	38.0	-1.2						
743	19 02 33.19	.30 +00 8 06 26.1	2.9	6	1	18	.AA	41.8	.6	MO	+062456	1	124241	1.0	
744	19 02 33.30	.19 +01 31 55.9	2.6	71	4	10	.AA	35.9	-2.3	MA	+012336	1.0	124242	.5	
745	19 03 48.62	.27 +00 35 37.6	5.2	18	1	8	.SB	33.7	-7						BD+01 3880 177550
746	19 03 57.47	.24 +00 6 09 07.2	2.9	379	104	329	ABD	42.0	.5	MD	+082461	.3	124266	.6	
747	19 04 30.83	.24 +00 7 06 20.6	3.3	122	16	167	BAA	41.1	-2	M2	+072569	1.2			+10407 34 2326 49 BD+06 4025
748	19 05 13.79	.22 +00 6 13 38.2	3.1	8	11	1	.AA	39.6	-1.1						
749	19 05 34.15	.22 +00 6 13 38.2	3.1	187	27	132	AB8	40.4	-1.6						+10408 45 2329 105
750	19 06 15.62	.12 +00 3 11 15.0	2.6	17	2	4	.BB	37.8	-2.4						00414 9
751	19 07 01.31	.25 +00 4 54 46.2	3.7	11	2	5	.AA	39.4	-1.7						
752	19 07 22.48	.38 +00 7 50.7	3.3	7	1	8	.AA	41.5	-6						
753	19 10 12.62	.36 +00 2 32 17.8	2.8	79	15	13	.AA	37.8	-3.6	MA	+062433	.7	124389	1.2	
754	19 11 23.62	.21 +00 2 32 17.8	2.3	157	30	23	.AA	39.4	-3.3						BD+06 4051 179510
755	19 12 21.90	.23 +00 9 14.7	3.6	16	5	9	.BC	39.4	-3.5	S4	+022399	.7	124413	.7	
756	19 12 35.20	.20 +00 7 09 2.8	2.8	270	145	52	.MF	29.3	-6.5						BD+06 4051 179510
757	19 16 24.93	.25 +00 4 12 00.3	5.9	17	3	10	.CC	39.9	-4.1						
758	19 16 46.29	.19 +00 5 00 31.3	3.9	15	1	10	.AB	40.7	-3.6						
759	19 17 35.30	.19 +00 3 05 50.5	2.3	157	30	23	.AA	39.4	-10.0						
760	19 17 51.91	.32 +00 7 47 35.8	3.1	11	1	11	.AA	43.2	-2.6						
761	19 18 09.55	.16 +00 35 50.6	0	57	0	4	.AA	32.2	-6.6	K5					
762	19 18 35.22	.30 +00 5 01 01.2	3.6	17	2	11	.AA	40.9	-4.2	K5	+052713	1.9	124333	1.4	
763	19 20 01.70	.19 +00 30 04.3	3.2	11	0	6	.BA	40.6	-4.6	H2	+042509	1.4			BD+04 4073 181636
764	19 20 05.78	.27 +00 3 19 48.7	5.1	3+	3	4	.AA	33.6	-6.4						BD+04 4080 4080
765	19 22 15.26	.26 +00 6 52.4	3.0	17	1	9	.AA	42.8	-11.4						-10502 27 2368 105
766	19 22 24.50	.19 +00 7 32 52.4	4.3	9	1	7	.AA	43.6	-3.9						
767	19 23 23 57	.36 +00 6 06 07.5	3.3	21	53	.AA	44.2	-3.6							
768	19 24 48.67	.31 +00 6 58 03.0	2.1	23	6	12	.AA	43.3	-4.7						
769	19 25 46.69	.27 +00 5 25 44.4	3.3	18	0	12	.AA	42.1	-5.6	HB	+052736	1.4	124660	1.2	
770	19 26 18.90	.21 +00 44 22.2	4.9	27	3	A	41.5	-6.1							00434 7

EIC	R.A.1950	DEC.1950	SDOC	FL	SDFL	OBS	L	B	TYPE	AGK3	EAG	SAO	ESA	TMSS	ETM	AFGL	EAF	DM	HD	
771	19 26 31.62	.37 +07 56 09.9	3.9	9	1	23 -.8A	44.4	-4.6	K5	+072643	.3	124676	1.6	00436	4			BD+07 4087 163365		
772	19 26 42.57	.21 .03 56 26.6	4.6	55	5	24 -.AB	40.7	-6.6	K5	+022445	.3	124698	1.6	00437	1	2398 103	BD+02 3904	183589		
773	19 27 39.74	.13 .02 47 54.6	5.3	70	5	7 -.AA	40.0	-7.3	K5					00438	71	2300	45			
774	19 27 40.07	.31 .02 56 26.8	4.8	53	12	9 -.B8	36.6	-9.0	HA					00439	39	2402	50	BD+03 4612 163630		
775	19 28 02.85	.20 .02 53 40.9	2.7	175	25	34 -.AA	34.9	-10.0	HA	+032479	2.1	124712	1.9	00440	26	ED+03 4045	103707			
776	19 28 14.80	.24 .03 52 42.7	5.5	19	1	6 -.AA	40.7	-7.0	FB	+052752	.3	124770	.7			BD+05 4185	16476			
777	19 30 31.89	.34 .05 57 51.1	7.7	77	51	11 1 -.B8	43.1	-6.4	K2	+042552	.3	124777	.3	00443	32	2412	74	BD+04 4152 164501		
778	19 30 39.18	.20 .04 55 13.4	3.3	133	10	96 -.AA	42.2	-6.9	MB					+10427	37					
779	19 30 53.47	.27 .06 09 11.8	4.5	44	7	36 A..AD	43.3	-6.4	PB	+052755	.7	124789	.3	+10428	50	2415	61	BD+05 4190 184313		
780	19 31 17.87	.20 .05 21 22.3	3.4	253	30	116 B..AA	42.7	-6.8	MB	+072673	1.2	124799	.7	+10430	41	BD+07 4132 184006				
781	19 31 38.92	.29 .07 16 12.0	3.0	53	6	40 A..A	44.4	-6.0	K0	+072676	2.7	124607	4.1	+10431	54	BD+06 4199 164542				
782	19 32 17.13	.22 .07 02 06.7	2.8	18	1	16 -.AA	44.3	-6.3	K2	+072678										
783	19 32 41.06	.19 .05 58 43.6	4.9	28	1	7 -.AA	39.6	-8.8	MB					+10444	19					
784	19 35 25.60	.29 .05 11 07.4	5.7	25	3	18 A..AC	43.0	-7.8	MB	+052766	1.0									
785	19 35 25.60	.28 .05 36 53.2	2.6	16	2	14 -.AB	44.3	-7.1	MB					+10432	56					
786	19 37 25.41	.28 .05 50 56.4	3.8	33	3	21 A..A	43.9	-8.0	MB					+10448	23	2430	91	BD+04 4880 185825		
787	19 38 29.34	.11 .04 02 13.5	2.9	124	20	8 A..A	35.1	-12.8	MB					+10450	18	2440	57			
788	19 41 15.26	.23 .03 37 17.0	4.0	49	12	19 -.B6	42.3	-9.9	MB					+10438	46					
789	19 43 01.89	.38 .07 39 43.9	4.1	17	3	26 -.AB	46.1	-8.3	MB					+10451	14	2452	53			
790	19 43 44.95	.16 .01 34 05.5	4.0	71	9	10 A..B	40.8	-11.4	MB					+10452	56					
791	19 46 07.03	.26 .03 34 17.7	4.3	57	5	14 -.AB	42.9	-10.3	MB					+10453	29	2458	116			
792	19 47 26.38	.21 .07 44 32.6	2.8	163	68	39 E..D0	32.7	-16.5	MB					+10524	68	2461	68	BD+02 5133 187660		
793	19 48 36.58	.21 .02 35 20.0	4.6	31	3	4 -.B9	37.6	-14.4	K5	+032555	.3	143853		00454	17					
794	19 48 57.16	.24 .03 57 35.2	4.3	18	2	10 -.B9	43.1	-14.4	K0	+072775	2.2	125147	3.5	00455	33	BD+03 4172 187734				
795	19 49 10.60	.22 .07 22 15.2	6.0	18	1	7 ...A	46.6	-9.8	HA					+10456	14	2452	168114			
796	19 51 25.41	.39 .09 42 20.8	1.8	57	6	8 -.AA	32.3	-17.8	K5					+10457	16					
797	19 51 49.43	.39 .09 19 47.3	3.2	74	9	7 -.AA	47.8	-9.9	K0	+082657	1.0	122110	.7	+10442	25					
798	19 52 02.28	.26 .06 51 28.6	3.3	35	3	74 Q..A	47.8	-9.9	MB					+10443	25					
799	19 52 51.28	.34 .06 16 35.7	4.0	59	6	37 C..B	46.1	-10.6	K0	+082658	1.6	125335	1.7	+10444	30	BD+06 4357 166512				
800	19 53 22.41	.25 .06 03 25.2	5.1	16	1	15 A..A	46.0	-11.1	MB	+062619	1.1	125242	.3	ED+05 4334 168514						
801	19 54 19.13	.26 .03 18 45.3	4.4	16	2	13 A..A	49.1	-10.4	K5	+082666	1.0	123269	2.0	ED+08 4275 165558						
802	19 55 00.12	.21 .02 31 15.9	3.0	170	40	20 -.B7	38.9	-15.6	MB					+10458	31	2479	80	ED+09 5103 168938		
803	19 55 10.34	.35 .09 11 39.4	1.7	16	3	6 -.C8	32.2	-16.6	K2					+10451	2.0					
804	19 55 11.71	.35 .06 25 37.9	5.6	10	1	8 -.A	46.6	-11.5	MB					+10452	1.2					
805	19 58 08.40	.49 .08 18.45.7	1.1	24	16	10 A..C	48.6	-11.2	MA	+082682	.3	125149	1.2					BD+08 4226 189001		
806	19 58 18.21	.24 .04 18 19.8	3.6	13	2	10 A..A	45.1	-13.2	MB					+10453	1.2					
807	19 58 33.86	.28 .03 25 06.9	3.6	33	5	67 9.B	48.7	-11.3	K2	+082685	1.6	125355	2.5	+10447	45	BD+08 4300 186995				
808	20 00 43.41	.23 .04 35 19.6	3.1	28	3	12 A..A	45.6	-13.6	K5	+042652	1.0	123384	1.0	00463	21	ED+07 4325 190955				
809	20 01 03.62	.43 .04 08 16.4	4.5	10	1	16 A..B	48.6	-12.0	MB	+082694	.7	123390	.7			ED+07 4333 190327				
810	20 01 41.63	.23 .07 01 07.8	2.8	16	1	23 -.AB	48.0	-12.6	K0	+072831	1.2	125403		+10448	18					
811	20 02 15.79	.19 .06 04 39.7	12	7	A..A	45.4	-14.2	HS	+042662	.3				+10455	7					
812	20 02 34.08	.15 .04 26 03.8	3.1	21	2	6 ...A	45.7	-14.1	HS	+042663					+10456	7				
813	20 05 15.02	.30 .05 54 28.0	5.4	25	4	14 -.AB	47.4	-13.9	MB					+10457	7					
814	20 07 47.66	.15 .06 25 08.0	2.8	131	26	9 ...A	36.4	-20.4	MB					+10458	30					
815	20 07 54.12	.17 .01 45 35.0	3.1	119	18	11 A..B	40.7	-16.3	MB	-012451	1.2	146135	1.2	00467	11	2515	96	BD+08 5105 191535		
816	20 08 41.92	.21 .06 11 56.4	3.6	35	2	27 A..A	48.1	-14.5	MB	+062674	.3	125333	5.5	+10454	29					
817	20 09 35.56	.31 .07 32 01.6	3.0	51	14 A..B	49.4	-14.1	MB	+072866	.3	125559	1.0	+10457	8	BD+07 4358 191924					
818	20 10 21.95	.26 .06 08 55.3	2.7	11	12 A..A	48.2	-14.9	MB					+10458	191924						
819	20 11 15.90	.23 .06 09 27.0	3.0	47	4	13 A..B	48.4	-18.4	MB	-002591	2.9									
820	20 13 27.02	.25 .07 30 57.6	3.1	109	17	148 7.AB	49.9	-14.9	MB	+072884	1.2	125625	.7	+10461	8	2537 136	ED+07 4422 192689			
821	20 16 33.09	.34 .06 54 57.9	4.2	41	6	37 B..AB	49.5	-15.4	MB	+062696	.3	125646	.8	+10462	26					
822	20 16 02.13	.17 .01 46 35.0	3.1	112	23	11 A..A	50.1	-15.2	MB					+10463	51.1					
823	20 17 49.44	.09 .06 39 50.4	4.2	12	1	5 AA..A	49.7	-16.3	MB	+052950	125747	.7	+10465	14						
824	20 20 41.76	.21 .05 10 53.4	2.1	17	13 AA..A	48.8	-17.6	MB					+10466	51.1						
825	20 20 48.36	.31 .07 47 40.5	3.1	43	5	64 B..A	51.1	-16.3	MB					+10467						

R.A.1950	DEC.1950	SDFC	FL	SDFL	OBS	L	B	TYPE	AGK3	EAG	SAO	ESA	TMS	ETH	AFGL	EA F	...DM....	HD			
20 21 21.62	-30 +00 46 59.5	50	7	6	B..9	44.6	-20 0	K5	+012440	2.6	125772	2.9	00474	22	2568 129	BD+00 4496 194263					
626	20 22 09.3	-16 +01 12 20.6	2.2	32	2	A..A	45.3	-20 0	K5	+012440	2.6	125772	2.9	00475	25		BD+00 4496 194263				
627	20 22 26 67.22	-29 +06 11 11.6	3.9	16	1	BA.	50.8	-16 0	K5	+062743	1.5	125890	1.1				BD+05 4532 195449				
628	20 23 26	-29 +06 11 11.6	3.9	16	1	BA.	50.8	-16 0	K5	+062743	1.5	125890	1.1				BD+05 4532 195449				
629	20 29 16.94	-30 +05 27 43.9	2.7	14	2	BAB	51.1	-16 0	M2	+062445	1.1	125903	.3				BD+06 4554				
630	20 29 48.35	-11 +01 57 45.7	6.1	26	5	E..9	47.0	-21 2	K2	+012461	1.1	125911	2.7	00480	80		BD+01 4310 195617				
631	20 32 17.92	-12 +05 03 36.9	3.7	15	2	A..A	50.2	-20 2	MA	+052996	1.7	125975	2.1	+10472	23		BD+04 4490 196055				
632	20 33 08.30	-26 +03 49 29.2	4.9	15	2	AA.	49.2	-21 0	M5	+032681	3.2	125998	2.5				BD+03 4375				
633	20 37 49.08	-27 +07 27 26.6	4.4	14	2	AA9	53.2	-20 0	M9	+082838	.7			+10476	45		BD+07 4531				
634	20 39 34.05	-22 +08 07 33.9	2.9	26	2	AA.	54.0	-20 0	M9	+082838	.7			+10477	18						
635	20 44 16.27	-29 +06 16 39.3	4.2	14	2	7AB	53.0	-22 0									BD+01 4359 197942				
636	20 44 17.56	-20 +02 15 42.6	3.4	141	16	BAAA	49.3	-24 2	MD	+022640								BD+01 4359 197942			
637	20 44 24.81	-25 +05 40 28.9	3.0	19	2	..A.	52.5	-22 4													
638	20 45 05.83	-24 +05 32 43.5	2.7	315	41	A.BA	42.2	-26 1	MA	+044814	.3	-10548	15	2652	87	BD+05 5378 198026					
639	20 46 42.81	-15 +00 44 57.4	3.6	225	38	AA.	46.8	-26 2	MB	-002687	1446441	00696	46	2858	94	ED+01 4057 196272					
640	0 47 56.30	-25 +05 56 25.2	3.0	56	6	AA.	53.2	-23 0													
641	21 02 05.15	-23 +05 05 57.5	4.7	197	7	21	54.8	-26 3	K2	+053079	3.3	126518	.6	+10475	32	BD+04 4606 200644					
642	21 03 17.56	-20 +00 26 42.4	3.3	199	100	C6H	49.6	-29 6													
643	21 03 39.26	-34 +07 37 45.1	2.5	495	4	AA.	57.2	-25 3													
644	21 04 58.67	-19 +00 21 56.1	5.0	96	16	13	9AC	51.9	-30 0	MB	-002732	1.6	145121	1.1	00500	14	2702	10	BD+00 4163 201098		
645	21 05 16.12	-31 +00 57 05.4	3.7	7	B..9	51.2	-29 3	K5	+02643	1.2	126556	.7					BD+00 4663 201159				
646	21 05 38.15	-11 +01 17 57.8	2.8	15	2	A..A	51.6	-29 2	M2	+012550	3.0						BD+00 4666				
647	21 05 55.34	-15 +03 55 57.6	3.8	25	3	AA.	53.3	-28 3													
648	21 05 59.68	-27 +06 47 10.3	3.7	47	4	BA.	56.8	-26 2	K5	+062888	1.1	126566	.7	+10487	13	2716 143	BD+04 4754 201298				
649	21 08 46.12	-48 +05 32 22.3	2.2	8	11	0	5	..A.	M0	+05095	4.8	126603	4.1				BD+04 4624				
650	21 12 00.57	-32 +06 28 55.9	5.9	10	6	AA.	55.7	-27 8	K5	+048877	1.4	126662	1.7				BD+04 4631 202276				
651	21 12 02.95	-23 +00 06 57.9	5.5	31	5	8	BA..	51.2	-31 3	K5	-022444	2.5	145229	2.0	00502	14		BD+00 4186 202259			
652	21 13 19.41	-25 +05 32 21.1	4.4	32	24	AA.	56.4	-28 7	F8	+126665	1.7	10489	.47				ED+04 4635 202447				
653	21 15 49.34	-32 +07 32 58.5	3.4	54	6	AA.	59.1	-27 7	MB	+073118	.5	126695	1.0	+10491	28	2737	82	ED+07 4660 202416			
654	21 18 36.33	-26 +07 08 29.0	3.4	67	19	34	0..F	59.2	-28 5	K5	+073125	1.26719	4.9	10494	19	2751	67	ED+06 4602 203291			
655	21 22 40.24	-22 +03 46 18.1	4.0	35	5	B9..	59.2	-35 5	K0	+145384	3.8	00503	42				ED+04 5446 203946				
656	21 25 56.80	-35 +07 59 36.8	2.6	44	6	AA.	61.2	-29 5	MA	+073145	.3	126818	.5	+10490	27		ED+07 4676 204455				
657	21 26 31.99	-23 +07 59 23.8	3.8	10	1	12	9A..	61.3	-29 6												
658	21 28 39.21	-20 +05 47 31.9	3.8	113	11	AAAA	59.3	-31 1	MA	+053142	1.7	126667	2.1								
659	21 28 55.48	-23 +05 47 31.9	3.8	113	11	AAAA	48.0	-37 9	60	+145457	.7	-10565	37	2776	119	ED+04 4694 201812					
660	21 30 38.44	-35 +05 55 37.2	4.8	15	2	AA.	61.1	-31 1													
661	21 32 10.00	-32 +01 36 21.2	3.1	183	36	54	0498	-34 5	MB	+012614	1.0	126901	1.0	+10504	30	2782	75	BD+01 4503 205358			
662	21 36 44.18	-30 +06 04 26.7	3.4	30	3	BA..	63.2	-31 5	MB	+062955	1.0										
663	21 37 01.05	-23 +02 01 00.1	2.3	0	6	A..A.	57.5	-35 3	K0	+022761	3.0	126965	2.3	00506	18		BD+01 4517 206067				
664	21 37 44.54	-22 +02 47.5	2.5	117	12	AA.	53.6	-37 7	M5	+021218	.7	145577	1.7	00507	37	2787	118	ED+02 5557			
665	21 38 16.60	-26 +03 40 09.1	4.6	13	2	8	A9.	59.4	-34 5	K5	+032826	.7	126985	.7				ED+03 4599 206622			
666	21 39 45.30	-25 +05 47 06.1	3.5	108	16	CB99	61.4	-33 7	HA	+053172	1.5	126702	1.2	+10502	34	2792	91	BD+05 4830 206457			
667	21 43 56.37	-14 -02 26 39.8	2.5	968	168	..AA.	54.2	-39 3	MB	+145652	.3	00509	22	2806	73	BD+02 5631 207076					
668	21 44 29.37	-16 +06 59 37.6	2.0	10	0	5	..A.	63.6	-33 7	K5	+062985	2.0	127057	1.7				ED+06 4900 207166			
669	21 58 40.17	-31 +08 00 57.9	3.1	30	4	41	7A..	67.4	-35 7	K2	+063046	.3	127239	1.7	+10506	17		BD+07 4779 209167			
670	21 59 24.07	-26 +06 02 57.8	3.3	15	2	15..B9.	65.8	-37 1													
671	22 00 53.87	-25 +05 11 51.7	3.6	15	2	13..B9.	65.3	-38 0	K5	+053223	1.9	127256	2.0				BD+04 4791 209464				
672	22 02 03 09.60	-25 +06 46 49.9	4.1	62	16	BA..	65.4	-38 6	K5	+042989	1.7	127285	1.0	00512	22	2843	22	ED+04 4800 209747			
673	22 03 12.79	-18 -00 33 48.2	4.3	120	14	AA9	59.9	-42 1	G0												
674	22 07 41.01	-23 +05 57 04.3	5.1	13	2	A9..	67.4	-38 7	A2												
675	22 14 58.53	-25 +04 53 37.3	4.8	31	4	19..AA.	68.0	-40 6	MA	+043011	.3	12734	1.4	00515	17		ED+04 4837 211516				
676	22 19 03.68	-31 -07 51 37.0	3.3	174	29	27 A..S.	69.7	-49.5	P9	+146043	4.5	-10530	4.5	00517	44		ED+04 4889 64				
677	22 25 19.48	-10 -04 26 32.6	2.3	38	6	3..S.	70.0	-42 9	MA	+043032	1.6	127540	1.0				ED+03 4710 212443				
678	22 39 29.60	-20 -05 21 45.7	3.2	120	16	17..B9.	62.7	-52 1	MA	+146251	2.9	-10585	15	2935	152	BD+05 5853 214583					
679	22 50 00 18	-18 -07 50 42.3	3.0	465	43	AAAB	62.2	-55 7	MA	+063062	2.6	-10588	2.6	2977	56	BD+08 5868 216586					
680	22 57 15 91	-46 +07 05 13.5	4.7	6	11	..C.A.	60.8	-46 2	K2	+073325	3.0	127894	2.6				ED+06 5095 217319				

ERIC	R.A.1950	DEC.1950	S00C	FL	SDFL	OBS	1236	L	B	TYPE	AGK3	EAG	SAO	TMSS	ETH	AFGL	EAF	... DM	HD	
631	23 04 14.06	-16	06 45 52.5	4.1	11	0	9	-AA-	80.8	-49.1	K5	+043109	2.1	127971	2.5	+10529	58	3031	39	ED+04 4059 210303
632	23 06 59.63	-16	06 24 23.0	3.9	423	56	57	AA-	84.8	-46.5	HB	+0831c6	2.5	128001	1.8	+00527	58	3031	39	ED+04 4981 210334
633	23 08 41.30	-20	04 43 55.2	3.6	265	40	91	EEA9	62.2	-49.6	HS	+043121	1.6	126019	1.0	00527	33	3039	89	ED+04 +675 210353
684	23 11 43.62	-25	06 19 13.0	2.7	223	31	26	AAA	70.9	-56.7	HA	+063121	1.4	10593	1.7	3049	109	ED+06 6170 212125		
385	23 13 16.89	-37	09 21 39.1	2.9	53	12	29	AA-	67.1	-61.1	K0	+46593	3.3	-10593	3	3054	15	ED+06 6156 214+9		
636	23 14 15.16	-16	07 53 57.6	2.3	339	32	24	A9A	69.4	-50.4	HC	+46612	1.4	-10597	26	3058	62	ED+05 6076 21577		
687	23 16 35.66	-15	03 00 33.0	2.7	72	17	7	EB-	82.5	-52.0	K0	+06085	1.7	00526	29	3062	32	ED+04 4648 21615		
688	23 17 47.51	-27	05 06 26.6	4.3	41	5	24	BA9-	85.4	-50.7	K0	+053366	1.0	128116	1.6	+10532	52	ED+04 +937 22009		
689	23 22 01.50	-17	03 26 22.9	4.7	40	4	9	AA-	85.4	-52.7	HA	+033007	1.3	128163	1.0	00530	20	3039 267 ED+04 +664 22055		
690	23 25 25.61	-31	06 06 13.3	4.3	47	3	32	AA-	63.8	-50.9	G5	+063192	1.7	+00535	12	ED+05 5173 22055+				
691	23 31 13.99	-26	06 11 19.9	3.6	26	4	21	AA9	60.8	-51.7		+10537	1.3							
692	23 32 53.99	-21	08 14 34.8	3.3	33	4	59	AA-	93.0	-49.9	K5	+093244	1.0	+10538	1					
693	23 43 49.86	-22	03 12 32.7	4.2	563	90	67	BA9	93.3	-55.6	HA	+033043	2.1	128379	.5	00532	15	3147 79 ED+02 5059 221832		
694	23 52 12.76	-25	00 10 06.2	3.2	212	30	43	AAB	96.1	-59.5	HB	-002999	1.4	146973	1.0	00535	86	3174 174 ED+00 4535 22052		
695	23 56 44.46	-45	06 35 06.7	7.5	19	0	34	A9D	100.7	-53.7	F5	+10545	2.5	00+06 5227 224617						
696	23 59 23.66	-23	-06 17 29.7	2.6	395	51	51	B9A	91.6	-65.8	HB	147042	2.3	-10606	24	3197	69	ED+06 6345 224935		